

1505

**Draft Environmental Impact
Report On The
Draft 1996 Metropolitan
Transportation Plan**

April 1996

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**NOTICE OF COMPLETION OF A DRAFT
ENVIRONMENTAL IMPACT REPORT FOR THE
1996 METROPOLITAN TRANSPORTATION PLAN**

April 22, 1996

ALL INTERESTED AGENCIES AND PERSONS

PURPOSE OF THE EIR

The Sacramento Area Council of Governments (SACOG) has distributed a draft Environmental Impact Report (EIR) for the 1996 Metropolitan Transportation Plan (MTP), and requests that all written comments on the draft EIR be received by **June 3, 1996**.

SACOG is a voluntary association of governments and is designated by the U.S. Department of Transportation as the metropolitan planning organization (MPO) for the Sacramento ozone non-attainment area, which includes the Counties of Sacramento, Sutter, Yolo, and Yuba, and the western portions of Placer and El Dorado Counties to the crest line of the Sierra Nevada. Member jurisdictions include the counties of Sacramento, Sutter, Yolo, and Yuba, and cities of Sacramento, Folsom, West Sacramento, Galt, Isleton, Live Oak, Yuba City, Davis, Winters, Woodland, Marysville, and Wheatland, as well as the cities of Lincoln, Rocklin, and Roseville in Placer County.

Because SACOG is designated as the lead agency in the preparation of the MTP, it also acts as the lead agency for the purpose of developing and distributing the EIR. As the MTP consists of a group of discretionary actions on the part of SACOG, the MTP is subject to the California Environmental Quality Act (CEQA) of 1970 and the State CEQA Guidelines.

The purpose of this EIR is to provide decision-makers and the public with an objective analysis of the potential environmental consequences of implementation of a set of improvements to the regional transportation system. The information presented in this document is intended to provide full disclosure of potential impacts and to increase public awareness and participation in the metropolitan transportation planning process.

LEGAL REQUIREMENTS

Because the 1993 MTP is considered a project of statewide, regional, or areawide significance (CEQA Guidelines, Section 15206), the draft EIR has been released for a 45-day public review period. Upon completion and distribution of the final EIR, the SACOG Board of Directors will review the document and will be asked to certify the EIR at its June 1996 meeting.

REVIEW OF THE DRAFT EIR

A copy of this document can be reviewed at the following public libraries:

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8401 CENTER PARKWAY
SACRAMENTO, CA 95823

RANCHO CORDOVA LIBRARY
9845 FOLSOM BLVD.
SACRAMENTO, CA 95827

April 6, 1994

In addition to the public libraries listed above, the draft EIR can be reviewed at the offices of the Placer County Transportation Planning Agency, 853 Lincoln Way, Suite 109 in Auburn, and at the offices of the El Dorado County Transportation Commission, 1166 Broadway in Placerville.

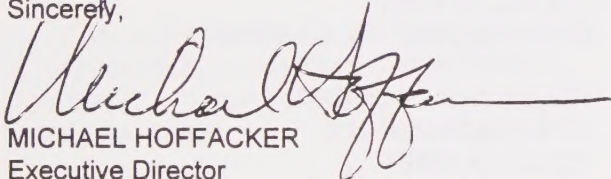
In addition, copies of the draft EIR can be requested by phone or mail or picked up at SACOG offices:

Sacramento Area Council of Governments
3000 S Street, Suite 300
Sacramento, California 95816
(916) 457-2264
Contact Person: Teri Sheets, Transportation Planner
Internet e-mail: tsheets@sacog.org

PUBLIC MEETING

A public hearing on the draft EIR will be scheduled in conjunction with the May 16, 1996 meeting of the SACOG Board of Directors. Responses to all comments received at the public hearing will be included in the final EIR. Written comments on the draft EIR must be received no later than June 3, 1996. Written comments received after this date cannot be accepted.

Sincerely,




MICHAEL HOFFACKER
Executive Director

MH:TS:

ADDENDUM TO APPENDIX A - NOTICE OF PREPARATION AND COMMENT LETTERS RECEIVED

The attached letter from Mark Pheatt, Rio Linda/Elverta Residents for Quality Rural Living, was received in response to the Notice of Preparation distributed in November 1995. It was omitted from Appendix A of the Draft Environmental Impact Report.



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Rio Linda Elverta Residents ***— for Quality Rural Living***



December 28, 1995

Sacramento Area Council of Governments
3000 S Street
Sacramento, Calif. 95816

Attention Teri Sheets, Transportation Planner

In response to the Notice of Preparation of an Environmental Impact Report for the 1996 Metropolitan Transportation Plan the following comments are provided:

Reasonable Range of Alternatives/Light Rail Extension Lines

1. Request that the Environmental Impact Report (EIR) study the installation of a light rail corridor installed in the center divider extending the entire length of Watt Avenue.

1. Request that the EIR study the use of the Sacramento Northern Railroad Easement for placement of a light rail extension. Such an extension should be seriously considered in light of the estimated 100,000 additional dwelling units proposed to be placed between downtown Sacramento and Marysville/Yuba City. The proposed transportation plan ineffectively responds to the growth within this sector. Examples of proposed growth include but are not limited to Elverta Villages, West Placer Community Plan and Sutter Bay. We know of many more that are conceptually in the pipeline.

2. Request that the EIR study the Impact of placing the estimated

100,000 dwelling units in the above mentioned area without the light rail extension.

Box Box 334
Elverta, CA 95626

— Member organization of SCAN —

SACOG's Authority/Responsibility

1. Request that SACOG evaluate its authority to impose the results of the MTP-EIR on any county planning agency within the sphere of influence of the Metropolitan Planning Area. It appears that SACOG lacks statutory authority /responsibility to mandate planning to any county government.

Local Planning /Conflict

1. Request that the EIR study the conflict between the proposed transportation plan and ongoing changes in land use (rezoning) permitted by the local planning agencies which contradict or dilute the effect of the MTP. Request that the EIR make recommendations to resolve the ongoing conflicts between local planning and area planning related to land use and a comprehensive transportation plan. Such areas to study include but are not limited to legislative changes which mandate regional planning's authority to tax and litigate inappropriate land use decisions.

Population and Housing

1. The EIR must study the action levels necessary to mandate various levels of public transportation. Action levels are defined as the number of houses or population projections identified for a specific planning area. Current population projections versus the proposed public transportation plans do not provide sufficient transportation alternatives. The use of national criteria , eg. so 10,000 houses mandate one additional bus or one additional carpool lane is inappropriate and must be rejected because the local topographical conditions(inversion layering) are unique and therefore do not follow the national criteria specifications. If they did we would have cleaner air. Instead propose lower thresholds for the mandatory use of busses and or installation of light rail systems into proposed communities.
2. Study the effect of various ratios of homes to various ratios of public transportation that shall result in improved air quality.
3. Study a penalty system to be imposed for land use re-zones which create additional transportation incompatibilities.

Land Use

1. Study the County Board of Supervisors campaign contributions' effect on re-zoning and land use and how it affects the overall MTP.

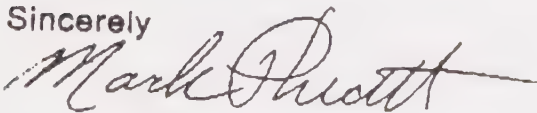
Air Quality

1. Request that the EIR study the human health effects of additional housing and use of POV's in relation to transportation alternatives. It is inappropriate to generalize about the human health effects of POV emissions. Study after study has identified POV harmful emissions. However the EIR must specifically quantify the number of citizens who will suffer irreversible health effects based on poor land use and transportation plan conflicts. How many more citizens will develop airway irritation or cancer from the chronic exposures.

Social and Economic Effects

1. Study the economic effects of electrical or gas utility companies' promoting the use of alternative fuel vehicles in attaining air quality goals.
2. Study the economic effect of delegating the design construction and development of the MTP to the Building Industry Association. (BIA)
3. Study the use of Transferable Development Rights (TDRs) as a planning tool to encourage the implementation of a comprehensive transportation plan and to benefit those land owners who will not be able to build as well as those who are able to provide for light rail or other special designated road ways for exclusive use of public transit.

Sincerely



Mark Pheatt, CEO

QRL

December 28, 1995

Sacramento Area Council of Governments
3000 S Street
Sacramento, Calif. 95816

Attention Teri Sheets, Transportation Planner

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Sincerely

Mark Pheatt, CEO
QRL

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1996 Metropolitan Transportation Plan Draft Environmental Impact Report

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CHAPTER ONE - INTRODUCTION

PURPOSE OF THE EIR

The subject of this Environmental Impact Report (EIR) is the proposed 1996 Metropolitan Transportation Plan (MTP) of the Sacramento Area Council of Governments (SACOG). SACOG originated the proposed programs and actions for the MTP and, as such, is the lead agency for the purpose of developing and distributing environmental documentation. As the MTP consists of a group of discretionary actions on the part of SACOG, the MTP is subject to the California Environmental Quality Act of 1970 (CEQA) and the State CEQA Guidelines.

The purpose of this EIR is to provide local decision-makers and the public with an objective analysis of the potential environmental consequences of implementation of a set of improvements to the metropolitan transportation system. The information presented in this document is intended to provide a full disclosure of the potential impacts and to increase public awareness and participation in the regional transportation planning process.

LEGAL REQUIREMENTS

Because the 1996 MTP is considered a project of statewide, regional, or areawide significance (CEQA Guidelines, Section 15206), the draft EIR has been released for a 45-day public review period. Upon release of the final EIR, which is anticipated on June 10, 1996, the document will undergo an additional review prior to SACOG Board review on June 20, 1996.

A public hearing will be scheduled for the May 16, 1996 SACOG Board meeting to hear testimony on the draft EIR. Notices will be distributed to all interested agencies and persons in advance of the meeting and for the June 20, 1996 SACOG Board meeting.

TYPE OF ENVIRONMENTAL DOCUMENT

The draft EIR assesses the potential cumulative effects of the proposed options for the 1996 MTP, lists ways to minimize significant impacts, and describes various alternatives. The State CEQA Guidelines indicate that an EIR impact analysis should correspond to the degree of specificity involved in the underlying activity being analyzed (CEQA Guidelines, Section 15146). Due to the programmatic nature and regional scale of the MTP, impacts associated with the proposed plan options are primarily addressed on a regional level. Local and project-specific impacts are more appropriately addressed at the time that specific projects and programs undergo environmental review by implementing transportation agencies, authorities, and local governments.

It is anticipated that this environmental impact report will assist SACOG's member jurisdictions and Caltrans in future project-specific environmental reviews. The focus of this EIR is to highlight potential impacts which will need to be further evaluated once precise scopes, designs, and locations of transportation facilities are more clearly defined. This document also recommends mitigation measures which should be incorporated into the environmental documentation for specific projects and which would be the responsibility of outside agencies to implement.

THE ENVIRONMENTAL REVIEW PROCESS TO DATE

Pursuant to CEQA Guidelines, SACOG circulated a Notice of Preparation (NOP) in November 1995. The NOP was routed through the State Clearinghouse to notify environmental review agencies that an EIR for the 1996 MTP was underway. A copy of the NOP and copies of the response letters received are included as Appendix A to this document.

ORGANIZATION OF THE DOCUMENT

Chapter Two provides a summary of the Preferred Option for the 1996 MTP and the potential environmental impacts that may result from implementation of the Preferred Option

Chapter Three describes of the Preferred Option and four alternatives

Chapter Four describes the potential environmental impacts associated with implementation of the Preferred Option

Chapter Five summarizes potential environmental impacts and their disposition

Chapter Six describes the four plan options and provides a brief alternatives analysis in each of the environmental categories

Chapters Seven and Eight list the individuals involved with the preparation of the EIR and references used in the document, respectively.

WHO TO CONTACT AT SACOG

Comments on this draft EIR are due to SACOG no later than June 3, 1996 and can be forwarded by any of the following methods:

by mail:

Teri Sheets
Transportation Planner
Sacramento Area Council of Governments
3000 "S" Street, Suite 300
Sacramento, CA 95816

by fax:

(916) 457-3299
ATTN: Teri Sheets

through SACOG's Bulletin Board Service (BBS):

Dial into the BBS at (916) 457-0660, and leave a message for "Teri Sheets" in the Message Menu

through the Internet:

tsheets@sacog.org

Figure 1
Environmental Review Process for the 1996 MTP

- *Notice of Preparation distributed November 1995*
- *Draft EIR prepared December 1995-April 1996*
- *Draft EIR distributed for 45-day public review April 19, 1996*
- *Public review period for Draft EIR ends June 3, 1996*
- *Final EIR prepared and distributed by June 10, 1996*
- *SACOG Board of Directors requested to review and certify EIR June 1996*

CHAPTER TWO - EXECUTIVE SUMMARY

WHAT IS THE MTP?

The Metropolitan Transportation Plan (MTP) is a 20-year plan that outlines the region's transportation needs, sets goals and objectives, and proposes solutions to meet them. The MTP covers a wide range of transportation issues, including air quality, rush-hour congestion, special needs of people with limited mobility, goods movement, and long-distance travel between the SACOG region and other areas.

State and federal law requires every metropolitan area to have a long-range transportation plan and requires the plan to be updated every two years. SACOG is the designated metropolitan planning organization (MPO) for the counties of Sacramento, Sutter, Yolo, and Yuba, and for Placer and El Dorado Counties except for the LakeTahoe Basin.

WHAT IS THE PREFERRED OPTION?

Summary Of Key Transportation Improvements (Not a Complete Listing)

Projects Not Included in Previous Plans Indicated by "(New)"

Corridor	Key Improvements
<i>Downtown Sacramento</i>	<i>Light rail extension</i> to Amtrak terminal (Phase 1, 1999) (New) and SP Intermodal terminal (Phase 2, 2010) <i>Intermodal terminal</i> in SP Railyard Redevelopment area (2010) (New) <i>Richards Blvd. extension</i> to Business 80 and widen existing segment (2008) <i>Master traffic controller system</i> for downtown traffic (1997)
<i>U.S. 50 Corridor</i>	<i>Carpool lanes</i> , 15/16th street to Mayhew Road; Sunrise Boulevard to Prairie City Road in Folsom (2010) <i>Caltrans Traffic Operations System</i> to manage traffic flow (2000) <i>Light-rail extension</i> to Mather Field Road (1998) and further to Sunrise Boulevard (2000) <i>Light-rail double-tracking</i> from Starfire to Butterfield and 65th Street to Watt Avenue (1996/1997) <i>Rail service</i> from Iron Point Road in the City of Folsom to Sunrise light-rail station (2000) (New), and from Iron Point Road to downtown Folsom (2006) (New) <i>Express light-rail service</i> with timed transfers from Folsom's rail service (2000) (New)

U.S. 50 Corridor (continued)	<p>New or improved freeway interchanges in Folsom at Scott/Bidwell (1997), Folsom Blvd. (1998), Prairie City Road (1998), Oak Avenue (2008) and Russell Ranch Road (2008); and in Sacramento County at Bradshaw (1996), Watt/Folsom Blvd. (2006), and Sunrise Blvd. (2006); and at Silva Valley Road in El Dorado County (2000).</p> <p>Urban interchanges at Watt Avenue/Folsom Blvd. (2002) and Howe-Power Inn/Folsom Blvd. (2015)</p> <p>Increase river-crossing capacity with new bridge in Folsom (1998) and widenings of Watt Avenue bridge (1999) and Hazel Avenue bridge (2000) in Sacramento County</p> <p>Placerville traffic improvements at U.S. 50 intersections (2004)</p> <p>Climbing lane added, Silva Valley to Bass Lake Road in El Dorado County (1999)</p>
Interstate 80 East (Sacramento & Placer Counties)	<p>Carpool lane, Madison Avenue to Placer County line (2005)</p> <p>Caltrans Traffic Operations System to manage traffic flow (1999)</p> <p>Interchange improvements at Greenback Lane/Elkhorn Blvd. (1998) and Madison Avenue (2006) in Sacramento County, and at Sunrise Blvd. (2005), Horseshoe Bar Road (2010), and Sierra College Blvd. (2010) in Placer County</p> <p>Commuter rail service from Placer County to Sacramento (2013) (New)</p> <p>Lincoln Bypass on Route 65 between Lincoln and Roseville (2005)</p>
Interstate 80 West (Yolo County)	<p>Carpool lane from Davis to the I-80 / U.S. 50 split (2010)</p> <p>Interchange improvements in Davis at Pole Line Road (in progress) and Mace Blvd. (1996), and in West Sacramento at Enterprise Blvd. (1997), Jefferson Blvd. (1997), Reed Ave. (2005) and Harbor Blvd. (2006)</p> <p>Capitol Corridor rail service from Sacramento to Davis, and on to Bay Area (4 round trips daily in 1996, 6 daily by 2000, 10 daily by 2015)</p>
Route 70/99 Corridor	<p>Widen Route 99 from I-5 to Elkhorn Blvd. in Sacramento (2006) (New)</p> <p>Interchange improvements at, Route 99/Elkhorn Blvd. (2005) (New), Route 99/I-5 (2015)</p> <p>Third bridge over the Feather River, Marysville - Yuba City (2010)</p> <p>Widen Route 70 to expressway status from 70/99 wye to 0.7 miles south of McGowan Parkway in Yuba County (two phases, 2000/2005)</p>

<i>Route 70/99 Corridor</i> (continued)	<p><i>Passing lanes and related improvements on Route 99</i> from Garden Highway to Sacramento Avenue (1998) (New)</p> <p><i>New interchanges</i> at Route 99/Riego Road (2005), Route 99/Elverta (2010), and Route 99/Route 20 (2010, first phase of eventual urban interchange)</p> <p><i>Right-of-way acquisition</i> for Route 70 Marysville Bypass (2006)</p>
<i>North Sacramento / Rio Linda</i>	<p><i>Arden-Garden Connector</i> from Arden Way to Garden Highway in Sacramento (two phases, 1996/1997)</p> <p><i>Extend Exposition Blvd.</i> with interchange at Route 160 (two phases, 1996/2006)</p>
<i>Interstate 5 North</i>	<p><i>Freeway connection</i>, I-5/Route 113 in Yolo County (2010)</p> <p><i>Interchange improvement</i> at I-5/County Road 102 in Yolo County (1999)</p> <p><i>New interchanges</i> at Truxel Road (1997), North Market Blvd. (2005), and Bannon Street (2015) in Sacramento, and at Spa Road (Metro Airpark) in Sacramento County (2001)</p> <p><i>Caltrans Traffic Operations System</i> to manage traffic flow (2006)</p> <p><i>Add auxiliary lanes on I-5</i> from I-80 to North Market Blvd. (2010) and from Del Paso Road to Route 99 (2015) in Sacramento (New)</p>
<i>Route 99 South</i>	<p><i>Carpool lane</i>, continuing existing lane; from Mack Road to Elk Grove Blvd. (1997) and from Martin Luther King Jr. Blvd. to N Street (1999)</p> <p><i>Light rail extension</i> (South Line) from downtown Sacramento to Meadowview Road, first phase (2001); and from Meadowview Road to Calvine/ Auberry, second phase (2007)</p> <p><i>Interchange improvements</i> at Elk Grove Boulevard (1996)</p> <p><i>Lincoln Way reconstruction</i> in Galt (phased, 1996/2000/2004)</p>
<i>Interstate 5 South</i>	<p><i>New interchange</i> at Cosumnes River Boulevard (2010)</p> <p><i>Caltrans Traffic Operations System</i> to manage traffic flow (2006)</p>

Route 49	<i>Widenings and intersection improvements</i> at numerous sites in Placer County (various years)
	<i>Widen Route 49</i> from 4 to 6 lanes from I-80 to Dry Creek (2005)
	<i>Auburn Bypass</i> between I-80 and Dry Creek (2015)
Other Improvements . . .	
Bikeway Projects	<i>Implement City / County Bikeway Master Plan</i> in Sacramento City and County (various years) (Some new)
	<i>Implement selected bikeway projects</i> in Yolo, Yuba, Sutter, Placer & El Dorado Counties, from Current Plan (various years)
Traffic Management	<i>Caltrans Regional Traffic Management Center</i> (1997) (New)
	<i>Sacramento County traffic operations system</i> (1998) (New)
Local Arterial Projects	<i>Improvements to local roads</i> throughout the region consistent with local plans; new roads in the S.P. Railyards and North Natomas areas of Sacramento (various years) (Some new)
Commuter Rail	<i>Station improvements</i> in several Placer County cities (various years) (New)
Air Quality Programs	<i>Spare the Air</i> information program (1997)
	<i>Heavy-Duty NOx Reduction Program</i> (1996) (New)
General Public-Transit Improvements	<i>Bus fleet replacement and expansion</i> , including CNG buses for lower emissions (gradual over 20 years)
Road Maintenance	<i>Catch up with backlogged road maintenance needs</i> , contingent on new revenue sources including Measure A renewal (gradual 2009-2015)

Note: Previous plans and studies contributed much to the development of these corridor strategies over time. They include, among many others, SACOG's Routes 70/99 Corridor Study, U.S. 50 Major Investment Study, HOV Systems Planning Study, and previous Metropolitan Transportation Plan analysis; Sacramento County's Capital Improvement Program; the City of Sacramento's Transportation Programming Guide; Regional Transit's Systems Planning Study and South Line Alternatives Analysis; Caltrans District 3's District Systems Management Plan; and other documents and contributions from these and other partner agencies over the past several years.

AREAS OF CONTROVERSY KNOWN TO SACOG

The question of whether or not the programs and projects in the MTP will induce additional population growth is controversial. The MTP assumes a certain population and employment base for its horizon year regardless of the level of transportation improvements. Some people expressed the belief that fewer people will move to the region if fewer improvements are made. The chapter on Population and Housing has more details on this issue.

The MTP presents air pollution emission data and forecasts from the California Air Resources Board (ARB). These numbers have been criticized by some as underestimating emissions from motor vehicles.

The MTP options call for carpool lanes to be provided by constructing new lanes. Some members of the general public have commented that carpool lanes should be provided only by redesignating existing mixed-flow lanes to carpool lanes.

Some MTP options call for increases in the statewide gasoline tax and other new revenue measures to be implemented to pay for improvements proposed in the MTP options. Even in a good economic

climate, such measures are unpopular among decision-makers and the general public.

Even with the new revenue measures proposed in the MTP, there will not be sufficient resources to construct all transportation projects sought by state and local agencies and transit operators. There is general controversy over the types of transportation improvements that should be included in the MTP to get the most improvement for the limited transportation dollars.

The MTP options call for widening numerous local roads for general traffic use. Some members of the general public believe that road widenings and new roads will cause increased trip-making and have advocated that no roads should be widened in order to discourage vehicle use. Others have advocated that widenings should be made for carpool use only. Others have argued that not enough is being done to expand the road system.

SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS AND RECOMMENDED MITIGATION

The following is a summary of the potential environmental impacts and recommended mitigation measures for the Preferred Option identified in Chapter Four, Potential Environmental Impacts.

Population and Housing

- Displacement of residents and businesses
Potentially significant and adverse impact
- Disruption of neighborhood character by creating real or perceived barriers to access within the neighborhoods
Potentially significant and adverse impact

Recommended Mitigation

Specific displacement and relocation impacts will be identified in project-specific environmental documentation for projects and programs in the Preferred Option. At that time, specific mitigation measures will be developed to address any significant and adverse impacts. Such measures may include, but not be limited to, the use of relocation programs to assist eligible persons and businesses who are forced to relocate as a result of construction of a transportation facility, and measures designed to minimize long-term community disruption between residential and community services. These types of measures would be implemented by the lead agencies for transportation projects and programs in the Preferred Option.

Land Use

- Potential impacts to sensitive land uses
Potentially significant and adverse impact

Recommended Mitigation

Specific land use impacts will be identified in project-specific environmental documentation for projects and programs in the Preferred Option. At that time, specific mitigation measures will be developed to address any significant and adverse impacts. Such measures may include, but not be limited to, the use of landscaped corridors when passing through parks and recreation areas, providing landscaped buffer zones for transportation projects adjacent to schools, and possibly re-routing planned improvements when approaching a sensitive land use. These types of measures would be implemented by the lead agencies for transportation projects and programs in the Preferred Option.

- Potential incompatibility with local land use plans
Less than significant impact. No mitigation required.

Mobility and Access

- Vehicle trips, vehicle miles of travel, and person miles of travel increase by 0.1 percent
Less than significant impact. No mitigation required.
- Person miles in LOS "F" conditions would decrease by 16.3 percent
Potentially significant beneficial impact.
- Daily person trips on any mode would increase from 0 to 3.8 percent under the Preferred Option.
Less than significant impact. No mitigation required.
- The number of jobs located within a 20-minute drive and a 20-minute transit trip would increase by 6.0 percent and 48.0 percent, respectively
Potentially significant beneficial impact.

Air Quality

- Hydrocarbon, nitrogen oxide, and carbon monoxide emissions resulting from implementation of the Preferred Option are expected to decrease substantially between 1995 and 2015
Significant beneficial impact
- Particulate matter emissions resulting from implementation of the Preferred Option are expected to increase
Significant, adverse, and unavoidable impact

Recommended Mitigation Measures

Specific impacts related to transportation facility construction will be identified in project-specific environmental documentation for projects and programs in the Preferred Option. At that time, specific mitigation measures will be developed to address any significant and adverse impacts.

Sufficient mitigation to reduce the projected level of mobile-source particulate matter emissions is not available. Therefore, the significant adverse impact identified for the projected increase in particulate matter emissions is unavoidable.

Noise

- Eighty-three roadway segments would experience decreases in traffic noise lower than the threshold of significance
Less-than-significant impact. No mitigation required.
- Three roadway segments would experience significant decreases in traffic noise
Significant beneficial impact
- Sixty-nine roadway segments would experience increases in traffic noise lower than the threshold of significance
Less than significant impact. No mitigation required.
- Six roadway segments would experience significant increases in traffic noise
Significant and adverse impact

Recommended Mitigation

Local agencies and Caltrans should include noise barriers (soundwalls, berms, etc) where necessary in the design of projects on I-5, Route 84, and Route 113 in Yolo County to mitigate potentially adverse traffic noise impacts.

Water Resources

- Substantial degradation of water quality.
Potentially significant and adverse impact

Recommended Mitigation:

1. Local agencies responsible for implementation of NPDES permits should develop methods to capture and treat storm water runoff from transportation facilities included in the Preferred Option.
- Substantial degradation or depletion of ground water resources
Less than significant impact. No mitigation required.
 - Substantial interference with ground water recharge.
Potentially significant, adverse, and unavoidable impact

Recommended Mitigation

None available to offset potential effects of transportation facility construction on ground water recharge capability.

- Substantial flooding, erosion, or siltation.
Potentially significant and adverse impact

Recommended Mitigation

2. During transportation facility construction, local agencies and Caltrans should construct and maintain drainage facilities with enough capacity to allow full drainage of storm water.
3. Local agencies responsible for implementation of NPDES permits should develop methods to capture and treat storm water runoff from transportation facilities included in the Preferred Option.

Biological Resources

- Potential degradation of sensitive habitats - by reduction of vegetation types, conversion of natural vegetation to urbanized uses and non-native species, and reduction of wildlife habitat and native wildlife species
Potentially significant and adverse impact
- Potential impacts to endangered and threatened species - either by direct impact onto the species itself or encroachment into areas of ecological significance by such species. This includes the possible interference with the movement of resident or migratory fish and wildlife species
Potentially significant and adverse impact
- Potential adverse exposures to biota and habitats from siltation, erosion, and releases/resuspensions of contaminated sediments

Recommended Mitigation

Carry out all necessary surveys prior to completion of the permit process for specific projects to determine the actual project-specific biological resource impacts, and develop appropriate mitigation measures for approval by applicable state and federal agencies.

Cultural and Historic Resources

- Transportation projects and programs included in the Preferred Option may be located in close proximity to known historic resources such as structures and archeological sites. Depending on the location and size of these transportation projects and the type of work to be undertaken, construction of transportation projects in the Preferred Option could disrupt or significantly affect known prehistoric or historic sites and structures.

Potentially significant and adverse impacts

Recommended Mitigation

1. Local agencies and Caltrans should consult with appropriate archeological or historic information center clearinghouses to identify known cultural and historic resources that could be affected by transportation improvements included in the Preferred Option. Initial studies completed for specific projects in the Preferred Option should assess the potential for damage to known historic resources, and the environmental documentation for these projects should include measures to preserve and protect affected historic resources.
- Transportation projects and programs in the Preferred Option could interfere with established recreational, educational, religious, or scientific uses of the areas in which they are located, including areas subject to Section 4(f) requirements.

Potentially significant and adverse impacts

Recommended Mitigation

2. Local agencies and Caltrans should prepare Section 4(f) statements as part of the environmental documentation for specific projects and programs in the Preferred Option, when it is determined that specific projects may adversely affect Section 4(f) lands. These statements would include appropriate mitigation to offset significant and adverse effects on Section 4(f) lands.
- Implementation of transportation projects and programs in the Preferred Option may also create potentially significant impacts in areas deemed sensitive for containing unknown cultural resources.

Potentially significant and adverse impacts

Recommended Mitigation

3. At the project-specific environmental review stage, local agencies and Caltrans should conduct an archaeological records search with the archaeological inventory centers to determine to whether there is a potential for specific transportation projects to adversely affect cultural resources. If indicated by the results of the search, a complete archaeological field survey should be conducted by a qualified professional archaeologist. If the field survey identifies the potential for significant cultural resources, apply appropriate mitigation measures as identified by the State Office of Historic Preservation and Appendix K of the CEQA Guidelines.

Aesthetics and Views

- Disruptions to important views or adjacent landforms
Potentially significant, adverse, and unavoidable
- The introduction of new visual elements in an existing and established landscape
Potentially significant, adverse, and unavoidable
- Improvements affecting state- or county-designated scenic highways.
Potentially significant, adverse, and unavoidable

Recommended Mitigation

Local agencies and Caltrans should apply design review procedures as appropriate and necessary to minimize adverse effects of new construction.

Utilities and Services

- Construction of proposed transportation facilities in the Preferred Option may uncover and possibly sever underground gas or electric lines, thereby creating a potential risk of explosion or electrical blackout
Less than significant impact. No mitigation required.
- The Preferred Option includes proposed extensions of light-rail facilities. Extensions of the light-rail system will require more electricity production to accommodate increased operations
Less than significant impact. No mitigation required.
- Construction of proposed transportation facilities in the Preferred Option may uncover and possibly sever underground communication lines, thereby blocking telephone services to nearby residents and businesses
Less than significant impact. No mitigation required.
- Construction of proposed transportation facilities in the Preferred Option may uncover and possibly sever water lines, thereby cutting off water supplies to nearby residents and businesses
Less than significant impact. No mitigation required.
- Construction and maintenance of proposed transportation facilities in the Preferred Option may require the use of water to mix materials, wash down surfaces, or wet down dirt-covered surfaces to minimize releases of particulate matter
Potentially significant and adverse impact

Recommended Mitigation:

1. Local agencies and Caltrans should use non-potable water for mixing construction materials, washing down surfaces, and wetting down dirt-covered surfaces.
- Construction of proposed transportation facilities in the Preferred Option may generate additional solid waste that will need to be disposed of in some manner
Less than significant impact. No mitigation required.
 - Construction of proposed transportation facilities in the Preferred Option may uncover and possibly sever underground sewerage, thereby creating back-ups in residential and business sewerage or resulting in spills of raw sewage.
Less than significant impact. No mitigation required.

- Construction activities associated with implementation of the Preferred Option may interfere with the response times of emergency vehicles, such as fire, police, or ambulance.
Less than significant impact. No mitigation required.

Energy Consumption and Dependence

- Fuel consumption is projected to increase by 45.8 percent between 1995 and
Potentially significant and adverse impact

Recommended Mitigation

1. State and federal agencies should increase fuel efficiency standards for automobiles and trucks to reduce energy consumption.
2. Local agencies should encourage volunteer compliance with adopted trip reduction ordinances (in accordance with state law) to reduce vehicle trips and vehicle miles traveled, which in turn would reduce energy consumption

Hazardous Materials Transport

- Construction and maintenance activities associated with the implementation of the Preferred Option will most likely involve the use of solvents and architectural coatings that may be considered hazardous if not used, stored, or disposed of properly.
Less than significant impact. No mitigation required.
- Potential routes for the transport of hazardous materials are likely to become safer because of proposed improvements in the Preferred Option
Potentially significant beneficial impact
- Congestion under the Preferred Option is likely to be nearly five times greater in 2015 than it was in 1995. The increase in congestion could contribute to accident rates, especially in corridors where no transportation improvements are proposed
Potentially significant, adverse, and unavoidable impact

Recommended Mitigation

Sufficient mitigation is unavailable to reduce the potential impact to less-than-significant levels.

Economic and Social Effects

- The Preferred Option has the potential to result in adverse effects on minority and low-income populations in areas where major transportation improvements are proposed. At the project-specific environmental review stage, potential adverse effects should be evaluated and specific mitigation developed once the location, size, and design of proposed transportation facilities are known.
- The Preferred Option appears to be consistent with local economic development goals by including transportation infrastructure improvements in areas where significant employment growth is forecasted.
- Because vehicle miles of travel and fuel consumption are estimated to be slightly higher under the Preferred Option compared to the 2015 Constrained Plan option, some potential external costs of the Preferred Option are projected to be slightly higher than potential external costs of the constrained plan option.

CHAPTER THREE - PROJECT DESCRIPTION

LOCATION

The study area for the 1996 Metropolitan Transportation Plan includes the counties of Sacramento, Sutter, Yolo, and Yuba, and Placer and El Dorado Counties except for the Tahoe Basin. This area - also referred to as the Sacramento metropolitan area - is shown in Figure 2.

PURPOSE AND NEED FOR THE 1996 MTP

The Metropolitan Transportation Plan is the long-range transportation plan that identifies various problems on the metropolitan transportation system, and proposes solutions that address those problems. The MTP sets policies to guide transportation decisions, proposes a program of capital, operational, and management improvements needed by 2015, and recommends a package of revenue measures to fund the proposed program. State and federal laws and regulations require SACOG to prepare and adopt a Metropolitan Transportation Plan and to adopt updates biennially.

In February 1995, SACOG prepared and distributed a booklet that outlines the metropolitan transportation planning process and the various transportation-related issues SACOG proposes to address with the 1996 MTP. This booklet, "Join Us In Planning Better Transportation for the Sacramento Region," is available from SACOG. Since the publication of this brochure, SACOG has updated and adopted a new set of population and employment projections, which are described in Chapter 4 under the "Population and Housing" section. Nevertheless, the brochure continues to serve as an adequate description of the purpose and need for the 1996 MTP and the issues to address in the metropolitan transportation planning process.

In addition, the SACOG Board of Directors adopted a revised set of population and employment projections on September 21, 1995. Every few years, SACOG updates its growth forecasts for housing, population, and employment. These projections reflect a consensus of local government agencies on anticipated development of the region over the next 25 years. The projections are used for transportation and air quality analysis, particularly for the Metropolitan Transportation Plan.

MTP GOALS AND OBJECTIVES

In approving the work program for the 1996 MTP update, the SACOG Board of Directors agreed that the MTP's existing goals would remain in place. The goals are:

System Preservation Goal

To preserve the existing transportation infrastructure as a means of protecting our transportation investments and maintaining an effective system.

Land Use/Mobility Goal

To meet the mobility needs of people of all incomes, ages, and physical conditions; and in the region's urban areas, to bring about changes in existing and future urban form that will facilitate development of the most efficient and effective transportation system possible.

Air Quality Goal

To directly support the achievement of state and federal air-quality standards.

Safety Goal

To provide the safest possible transportation system for all.

Environmental Goal

To provide for transportation services, facilities, and vehicles that cause the least amount of environmental damage and yield environmental benefits wherever feasible.

Economic Goal

To create the most economical transportation system and to make the most efficient use of transportation revenues in providing transportation services and facilities, optimizing the movement of people, goods, and information.

Organizational Goal

To foster more coordination and cooperation among agencies to avoid interagency conflict and to assure the most effective use of transportation resources.

DESCRIPTION OF THE PLAN OPTIONS

In developing a set of transportation projects and programs for the 1996 MTP, SACOG staff started with several questions to guide in the development of plan options:

- Should we place more emphasis on making the current transportation system operator more efficiently, or should we continue to make the system bigger by building more capacity?
- What level of transportation performance can we expect in the future, if no new revenue sources are developed and we have to scale back our existing 20-year plan (meaning few, if any, light rail extensions and major highway capacity improvements)?
- What are the benefits of a plan developed through a regional planning forum, compared to one built from locally developed plans with a few regional projects added?

To answer these questions, SACOG developed four alternatives for evaluation as part of the metropolitan transportation planning process. The potential environmental impacts of these alternatives, which are briefly described below, are summarized in Chapter 6 - Plan Options.

Current Plan Option

This is SACOG's 1993 Metropolitan Transportation Plan developed in 1993 and amended in 1994. This option serves for comparison purposes, enabling us to see how much better or worse the new alternatives area, compared to the plan we already have. The current plan calls for ballot measures that would raise sales taxes in Sacramento, Sutter, and Yuba Counties, and for another ballot measure that would boost the statewide fuel tax by 20 cents per gallon, phased in at one cent per year for 20 years. This option has the full complement of light rail extensions, a full network of carpool lanes on all freeways leading to downtown Sacramento, and all of the Routes 70/99 corridor improvements in Sutter and Yuba Counties.

Current Plan Constrained Option ("No Project" Option)

This option is based on SACOG's 1993 Metropolitan Transportation Plan, but without calling for any new review such as sales-tax or gas-tax ballot measures, as the 1993 MTP called for. The option was developed by removing the most expensive projects from the existing plan, to fit within the most conservative estimates of available funding over the next 20 years. The projects removed were light rail extensions (other than the two-mile extension from Butterfield Road to Mather Field Road already programmed), construction of carpool lanes on area freeways (other than the Highway 99 carpool lane segments already programmed), and a set of major highway improvements on Highways 70 and 99 in Sutter and Yuba Counties. These were the most costly projects in the current plan, and they would require more funding than is likely to be available over the next 20 years.

The Current Plan Constrained Option is considered the "no project" option because it represents the set of projects from the current plan that most likely would be implemented by 2015. The Current Plan Option contains many projects and programs that rely on new state and local funding programs that have not been implemented. Consequently, the Current Plan Constrained Option represents the set of reasonably foreseeable transportation improvements that will take place over the next 20 years.

Local Plans/New Projects Option

For this option, SACOG staff compiled lists of transportation projects that were developed locally through counties' congestion management programs, some local long-range transportation plans, and other sources. Additional projects were added upon request from project sponsors, who could be cities or counties, public transit operators, advocacy groups, or other entities. The additional projects included numerous bikeway projects, some improvements to freeway interchanges or major arterial roads, and the extension of light rail service to southern Sacramento County. Of the three options being considered, this option most closely resembles the "current plan option."

Transportation Management/ Land Use Option

This option emphasizes efficiency techniques known as transportation demand management and system management (TDM/TSM), and strengthened land-use policies to channel post-2005 growth in Sacramento into certain zones that are near major transit corridors or infill areas. These strategies are emphasized instead of more traditional - and expensive - strategies of expanding the physical capacity of the transportation system.

In November 1995, SACOG distributed a Notice of Preparation that included a these four plan options for the 1996 MTP. Between November 1995 and March 1996, SACOG has worked with the Regional Planning Partnership and community organizations to develop a Preferred Option based on technical, social, and economic considerations. The Preferred Option is described as follows:

Preferred Option

The Preferred Option is more ambitious than the constrained option, but it is considerably less ambitious than the Local Plans / New Projects option or the Current Plan option. The Preferred Option includes high-priority projects identified by local jurisdictions as possible funding candidates, air quality programs to help us meet the State Implementation Plan for Air Quality, key regional mobility projects such as the carpool lanes and expansion of public transit and intercity rail, and incorporates local master bikeway plans and other bicycle/ pedestrian projects. The preferred option also reflects locally funded road improvement projects to be administered by other agencies.

PROJECTS INCLUDED IN EACH OPTION

Table 1 summarizes the types of projects included in each plan option. Please note that the table includes only key types of projects to demonstrate major differences between options. Numerous other types of projects are not shown, including road maintenance projects, enhancement projects, double-tracking of light rail lines, bridge rehabilitation or replacement, and soundwall installation, among others. These types of projects are common to all options because of the high priority placed on maintenance and rehabilitation of the existing transportation system.

A list of all transportation programs and projects included in all plan options is available from SACOG upon request.

Table 1
Type of Projects Included in Each Plan Option

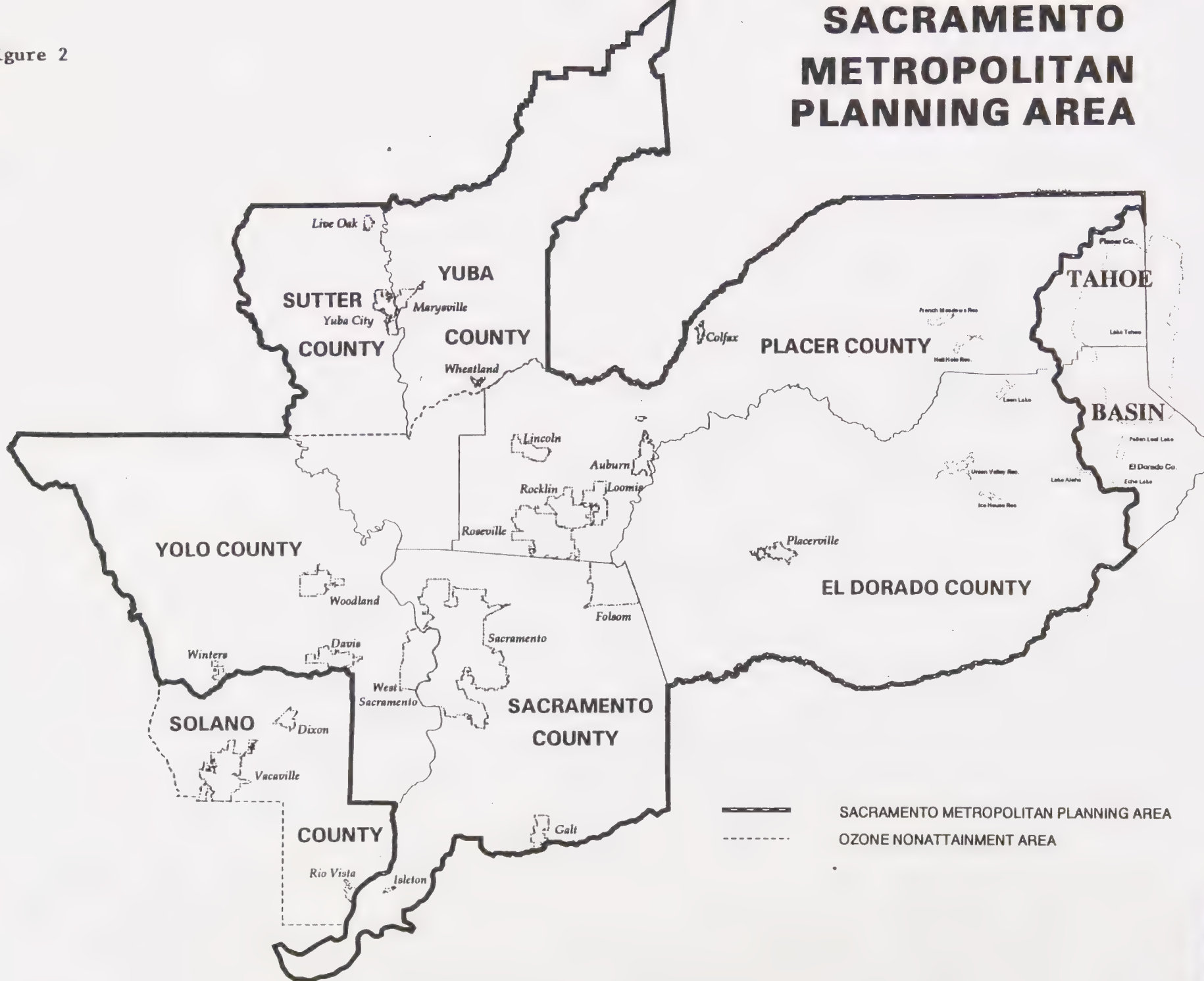
Type of Project	Plan Option ²					
	PO	CP	CPC	LP- NP	TM- LU	Core Set
Bicycle/Pedestrian	331	36	45	86	85	51
Carpool Lanes (new HOV lanes)	5	10	0	7	3	1
Interchange Projects (new or modified)	33	17	10	26	6	17
Rail Transit (new lines or extensions of existing lines)	11	8	1	7	5	3
Transit Capital Acquisition (non-rail)	113	16	7	43	47	5
Local Road Projects (new roads or widenings)	177	55	61	131	87	125
TSM/TDM	32	1	7	19	31	10

¹ The number of bicycle and pedestrian projects in the Preferred Option appears to be substantially smaller than the number of projects in the Local Plans/New Projects option or in the Transportation Management/Land Use option; the reason is that a number of specific bicycle and pedestrian projects have been combined into a single categorical reference to the Sacramento City/County Bikeway Master Plan for inclusion in the Preferred Option.

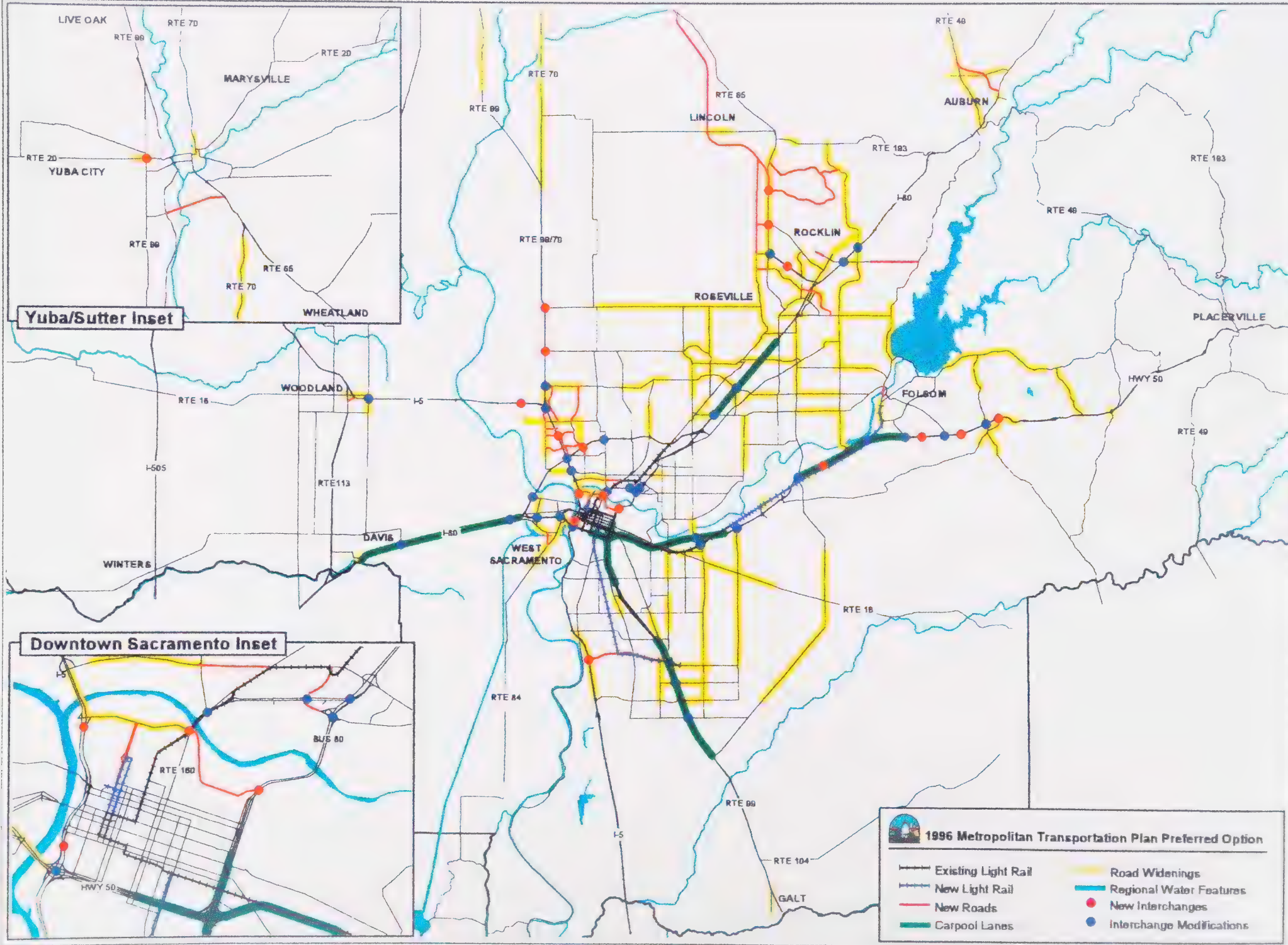
²PO Preferred Option
 CP Current Plan Option
 CPC Current Plan Constrained Option
 LP-NP Local Plans/New Projects Option
 TM-LU Transportation Management/Land Use Option
 Core Set Transportation Projects and Programs Common to all Plan Options; the transportation projects and programs shown in each of the five plan options are in addition to those in the core set.

Figure 2

SACRAMENTO METROPOLITAN PLANNING AREA



May 1984



CHAPTER FOUR - POTENTIAL ENVIRONMENTAL IMPACTS

The Environmental Impact Analysis section of the EIR assesses the proposed project with regard to adverse and beneficial effects in the following subject areas:

<i>HUMAN ENVIRONMENT</i>	<i>NATURAL ENVIRONMENT</i>	<i>PHYSICAL ENVIRONMENT</i>
<i>Population and Housing</i>	<i>Air Quality</i>	<i>Land Use</i>
<i>Mobility and Access</i>	<i>Water Resources</i>	<i>Utilities and Services</i>
<i>Noise</i>	<i>Biological Resources</i>	<i>Aesthetics and Views</i>
<i>Cultural and Historic Resources</i>	<i>Energy Consumption</i>	
<i>Hazardous Materials Transport</i>		
<i>Social and Economic Effects</i>		

Analysis of each of these environmental subject areas is organized as follows:

Environmental Setting: A description of existing and pre-project conditions, and a discussion of the policy and technical background necessary for the analysis of potential environmental effects.

Potential Environmental Impacts: An analysis of the beneficial and adverse effects of the proposed project relative to the criteria and thresholds for significance.

Recommended Mitigation: Wherever significant adverse impacts have been identified, mitigation measures are recommended to minimize impacts.

POPULATION AND HOUSING

INTRODUCTION

CEQA defines population impacts to include changes to the location, distribution, density, or growth rate of the human population, while housing impacts relate to alterations in existing housing or the creation of demand for additional housing. This environmental analysis section considers population and housing impacts that may result from implementation of the Preferred Option for the 1996 MTP.

ENVIRONMENTAL SETTING

Population and Housing Projections

Every two to three years, SACOG updates its growth forecasts for housing, population, and employment. These projections reflect a consensus of local government agencies on anticipated development of the region over the next 25-year period. The counties of Sacramento, Sutter, Yolo, Yuba, Placer, and El Dorado (excluding the Tahoe Basin) are included in these projections. The projections are used for transportation and air quality planning purposes, particularly for the development of the Metropolitan Transportation Plan.

The current set of SACOG projections was adopted by the SACOG Board of Directors on September 21, 1995. The full set of population, housing, and employment projections for the entire Sacramento metropolitan area are included in a report entitled, "SACOG 1995 Regional Housing, Population & Employment Projections: Documentation and Analysis" (SACOG, February 1996), which is hereby incorporated by reference. This report is available at SACOG upon request.

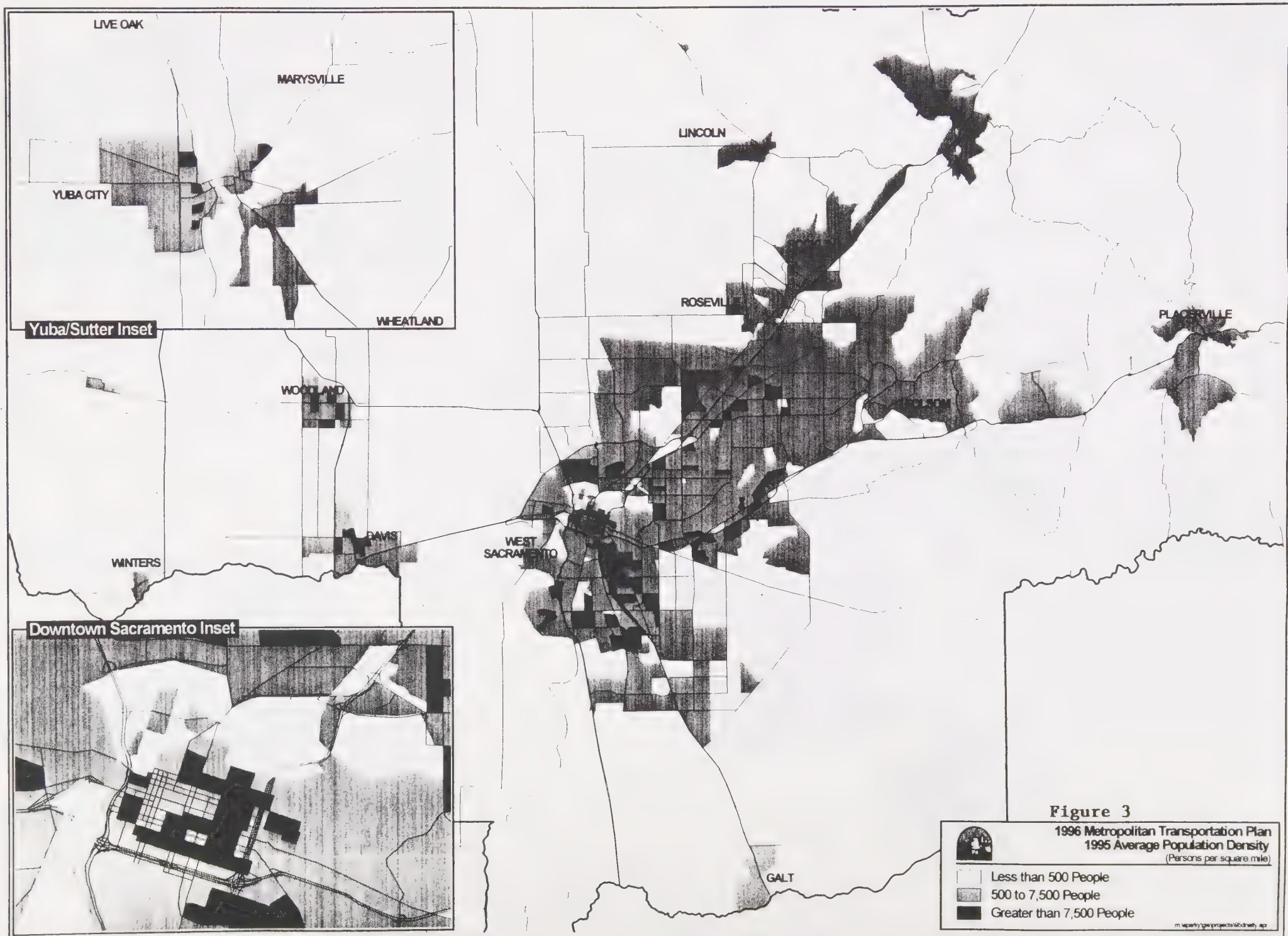
Leading Growth Areas

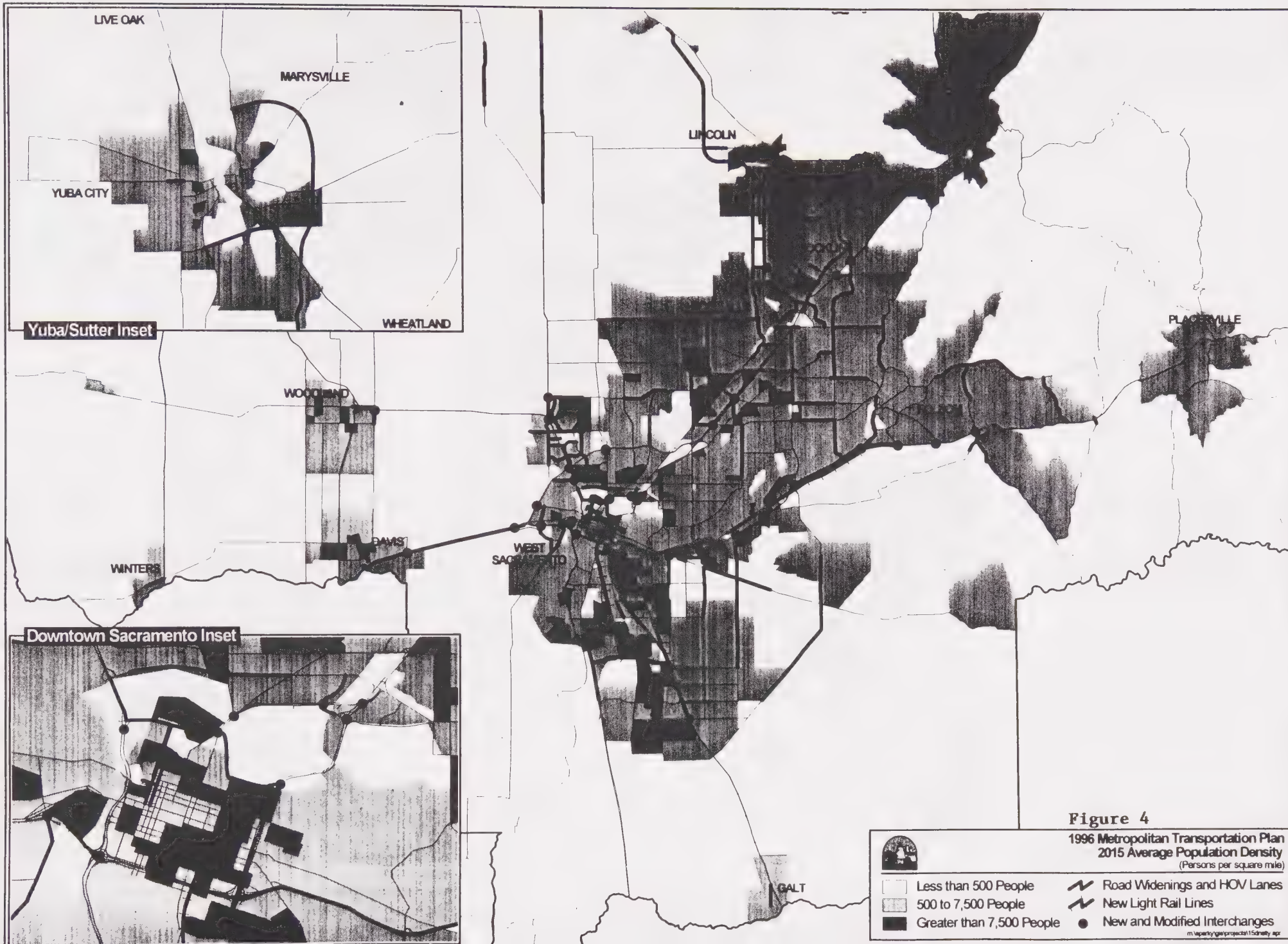
The report indicates that - region wide - population is expected to increase from 1,800,500 in 1995 to a 2015 total of 2,610,800. On the employment side, the total number of jobs is expected to increase from 709,800 in 1995 to 1,105,200 in 2015. .

Figures 3 and 4 show 1995 and 2015 population densities, respectively. These figures show that - over the next 20 years - various portions of the region will experience significant population growth, particularly areas to the north and east of Sacramento. Communities with the largest population increases expected between 1995 and 2015 include Franklin/Laguna in south Sacramento County, Roseville/Rocklin, Natomas in north Sacramento County, El Dorado Hills, and the Vineyard area in south Sacramento County.

Figures 5 and 6, likewise, show 1995 and 2015 employment densities, respectively. These figures show that - over the next 20 years - several areas will experience significant job growth. These areas include downtown Sacramento, Roseville/Rocklin, Rancho Cordova, West Sacramento, and Natomas.

State law allows a region's population forecasts to be used in planning and policy-making as long as they do not exceed the Department of Finance's baseline regional forecasts. Based on demographic data, DOF's April 1993 projection set provides a much more optimistic picture of growth in the area than SACOG's land-use driven forecasts. DOF's projections were released before the impact of the recent recession was realized, including the significant migration out of the state that resulted. SACOG's new projections, meanwhile, represent a recognition that economic growth will probably not occur at the same rate that it has over the past ten years.







Jobs-Housing Ratio

The study of jobs-housing balance continues in urban and urbanizing regions across the country as a land-use strategy with the potential to improve regional air quality and mobility. The premise assumes that land-use policy can create a balanced mix of housing and employment opportunities, which in turn can reduce commuting distances and associated air pollution. The primary objective for many jurisdictions is to improve mobility by reducing total vehicle miles traveled (VMT), both work and non-work related. Therefore, improving or worsening jobs-housing balance would not result in a beneficial or adverse impact in and of itself, but the resultant effects on mobility, congestion, and air quality may comprise significant secondary impacts.

The jobs-housing ratio provides a quantitative measure of the mix of employment and housing in a given area. It is calculated by dividing an area's total number of jobs by its total housing units. A jobs-housing ratio equal to "1" means that there is one job for every housing unit.

In 1995, the jobs-housing ratio in the Sacramento metropolitan area was 1.04 jobs per dwelling unit (see figure7). At the county level, the six counties displayed different jobs-housing ratios in 1995, ranging from 0.58 ratio in El Dorado County to 1.14 in Yolo County. A jurisdiction is considered housing rich if the ratio is less than 1.1, and job rich if the ratio is above 1.3.

POTENTIAL ENVIRONMENTAL IMPACTS

This section discusses the potential population and housing impacts that may result from implementation of the Preferred Option based on several criteria for significance.

Criteria for Significance

Appendix G of the CEQA Guidelines indicates that a project will normally have a significant effect on the environment if it will:

- Induce substantial growth or concentration of population
- Displace a large number of people
- Disrupt or divide the physical arrangement of an established community.

Growth-Inducing Potential

One of the stated purposes of the 1996 MTP is to accommodate growth forecasted for the Sacramento metropolitan area. Between the years 1995 and 2015, residential population is expected to increase by 48 percent, while employment grows by 54 percent. In developing options for the 1996 MTP, these population and employment projections remain constant throughout the analysis because they serve as basic assumptions. In other words, it is assumed that the projected growth in population and employment will occur with or without the transportation projects and programs proposed in the MTP.

*Figure 7
Jobs-Housing Ratio
in the Sacramento Metropolitan
Area*

<i>County</i>	<i>1995</i>	<i>2015</i>
<i>El Dorado</i>	<i>0.58</i>	<i>0.66</i>
<i>Placer</i>	<i>1.00</i>	<i>1.05</i>
<i>Sacramento</i>	<i>1.10</i>	<i>1.15</i>
<i>Sutter</i>	<i>0.79</i>	<i>0.86</i>
<i>Yolo</i>	<i>1.14</i>	<i>1.36</i>
<i>Yuba</i>	<i>1.03</i>	<i>1.06</i>
<i>Region</i>	<i>1.04</i>	<i>1.10</i>

While existing needs can be identified through surveys of current conditions, future-year needs must be based on some forecast of future land use and socio-economic data. To meet the needs identified through the growth projections, proposed transportation facilities and services in the Preferred Option are included to address deficiencies in existing urban areas. In addition, some proposed improvements are located in areas by local jurisdictions for development or redevelopment. Without these proposed improvements, projected population and employment growth described earlier in this section would result in more congestion and decreased mobility on the metropolitan transportation system.

There has generally been some disagreement, however, as to whether the MTP should be considered growth accommodating or growth inducing. If existing deficiencies are not addressed and future projected travel demand is not met, according to one theory, then some areas of the region expected to receive new jobs or housing may become undesirable, causing the regional growth total to decline by some amount.

To evaluate the potential for growth inducement, SACOG staff compared the population projections used in the MTP analysis with those from the Department of Finance. DOF projections are shown in the "SACOG 1995 Regional Housing, Population & Employment Projections" report for comparison purposes.

*Figure 8
Comparison of SACOG and
Department of Finance 2015
Population Projections*

SACOG	2,610,800
DOF	2,807,200

This comparison shows that SACOG's population projections are compatible with those of the Department of Finance. Further, SACOG's population projections represent a recognition that economic growth will probably not occur at the same rate as it has over the last ten years. Because of the assumption that this economic growth will occur with or without transportation improvements, the Preferred Option is not expected to induce significant changes in the regional total of population, housing, or employment.

On a subregional level, the Metropolitan Transportation Plan could be considered growth inducing. The growth forecast upon which the MTP is based identifies faster-growing subareas within the region; the structure of the planning process results in these areas receiving priority for new facilities due to need and travel projections. New transportation facilities provide access to areas of new development, thereby allowing more people and jobs to locate in growth areas. Without these facilities, the lack of access could force development into areas with existing transportation infrastructure, thereby shifting population and employment growth from one area of the region to another.

This phenomenon has two possible effects. The lack of new transportation facilities in the MTP could result in less population and employment growth in areas that would have otherwise received new facilities. From this standpoint, the inclusion of new transportation facilities in the MTP could be considered growth-inducing in some localities. On the other hand, the lack of new facilities in some areas could also result in increased growth in areas with existing transportation infrastructure, growth that may not have been anticipated in the local general planning process. In addition, this increased growth may exacerbate what may already be congested conditions on the existing roads and transit facilities. From this standpoint, the lack of new transportation facilities in the MTP could be considered growth-inducing in some other localities.

Attempts to determine the possible relocation of housing and employment that may result from the lack of transportation improvements in certain areas would be speculative at this time. This exercise would require analysis tools that could forecast the number of people and jobs that would move from one area to another based on changes in the transportation system. Such an analysis tool - called the DRAM/EMPAL model - is currently under development and is not yet available for use in the MTP analysis. Because of the lack of data to support one viewpoint over another, or to determine the

degree to which population shifts within the region may occur, it is not possible to determine the significance of potential growth inducement at the subregional level of implementation (or lack thereof) of the Preferred Option for the 1996 MTP.

Jobs-Housing Balance

The jobs-housing ratio is expected to increase by 2015 from 1.04 to 1.10. As indicated earlier in the Environmental Setting, an area is considered housing-rich if the ratio is less than 1.10 and jobs-rich if the ratio is greater than 1.30. Therefore, the increase in the jobs-housing ratio means that the Sacramento metropolitan area as a whole will become more balanced in the provision of jobs and housing. However, it is not possible to determine if changes in the jobs-housing balance are attributable to implementation of the Preferred Option for the MTP. As with subarea growth inducement potential, it is not known to what degree population or employment shifts would occur and its resulting effects on jobs-housing ratios. Therefore, it is not possible to determine at this time if implementation of the Preferred Option will result in changes in the jobs-housing balance that would create an adverse or beneficial impact.

Displacement or Relocation of Residences and Businesses and Disruption of Neighborhood Character

Potential impacts to residents, businesses, and neighborhoods are generally described in this section. More detailed evaluations will need to be conducted on a project-by-project basis to identify specific impacts, such as the number and types of housing units that could be removed as a result of transportation facility construction, or the neighborhoods to be impacted by new or improved transportation facilities.

Potential impacts to residents and businesses and neighborhood character could occur if the Preferred Option is implemented. Depending on the location of proposed facility improvements, the scope of the projects, and the extent of surrounding development, potential impacts to residents and businesses could be as minor as the acquisition of vacant land for right of way or as major as the removal of several homes and businesses to make way for new roads and transit facilities. As mentioned above, one of the objectives of the MTP is to provide transportation facilities and services to areas of planned population and employment growth. Therefore, the majority of impacts resulting from transportation facility construction are likely to take place in more urban environments where more residents and businesses are located.

Major improvements to existing facilities (such as road widenings to four or more lanes) and new transportation facilities could impact neighborhood character by creating a real or perceived barrier to access within the neighborhood. This could be particularly true for bicyclists and pedestrians using these modes to gain access to homes, shopping, and services within their neighborhoods.

In summary, transportation projects in the Preferred Option have the potential to create the following adverse impacts:

- Displacement of residents and businesses
- Disruption of neighborhood character by creating real or perceived barriers to access within the neighborhoods.

The purpose of this EIR is to identify the potential impacts that might occur with the implementation of the Preferred Option. These potential impacts should be evaluated further in environmental documentation for specific projects in the Preferred Option once precise locations and project scales are known. This section of the EIR is intended to act as a resource to local jurisdictions as they prepare project-specific environmental documentation and develop specific programs by which to

mitigate adverse impacts.

RECOMMENDED MITIGATION MEASURES

Specific displacement and relocation impacts will be identified in project-specific environmental documentation for projects and programs in the Preferred Option. At that time, specific mitigation measures will be developed to address any significant and adverse impacts. Such measures may include, but not be limited to, the use of relocation programs to assist eligible persons and businesses who are forced to relocate as a result of construction of a transportation facility, and measures designed to minimize long-term community disruption between residential and community services. These types of measures would be implemented by the lead agencies for transportation projects and programs in the Preferred Option.

LAND USE

INTRODUCTION

The Land Use section of the EIR discusses existing land uses and potential impacts that may result from implementation of the Preferred Option for the 1995 MTP. The task here is to examine the potential impact that implementation of the Preferred Option may have on local land use and circulation plans.

ENVIRONMENTAL SETTING

Existing Land Use

The Sacramento metropolitan area possesses many geographically distinct features that include the Yuba, Bear, Sacramento, American, and Cosumnes Rivers, as well as mountain-valley areas such as Capay Hills, Sutter Buttes, and the Sierra Nevada foothills. Although predominantly a rural area, the Sacramento metropolitan area is also comprised of major urban centers such as the Sacramento, Davis, and Yuba City-Marysville urbanized areas.

The following summarizes the general land use characteristics in the Sacramento metropolitan area:

- The highest concentration of commercial activity and higher density housing occurs in the Cities of Sacramento and West Sacramento.
- Towards the east and northeast (Placer and El Dorado Counties), rural residential and industrial uses prevail.
- Along Route 50 towards the City of Folsom, industrial uses dominate the areas, although the land surrounding the American River is generally comprised of lower density residential uses.
- To the south, land uses surrounding the unincorporated area of Elk Grove primarily consist of low-density uses such as rural and low-density housing, and urban reserve and non-urban areas.
- In the cities of Marysville and Yuba City, land surrounding Routes 70 and 99 is used for commercial purposes with adjacent low-density residential housing. To the northeast of Marysville, in the area encompassing the Yuba River, industrial uses predominate.
- To the west, the cities of Woodland and Davis are comprised of a mix of land uses. The highest intensity of land uses in these areas occurs along Interstate 80 in Davis and Interstate 5 in Woodland.

Broader Community Goals

Broader community goals were compiled from a review of local general plans. Local general plan land-use goals and policies were grouped and then summarized to show the major themes and ideals of the many jurisdictions within the Sacramento metropolitan area. These general themes for land-use development include the following:

- Provide for an orderly pattern of community development consistent with economic, social, and environmental needs of each jurisdiction.
- Maintain and enhance agricultural areas.
- Promote infill and redevelopment to the extent possible.

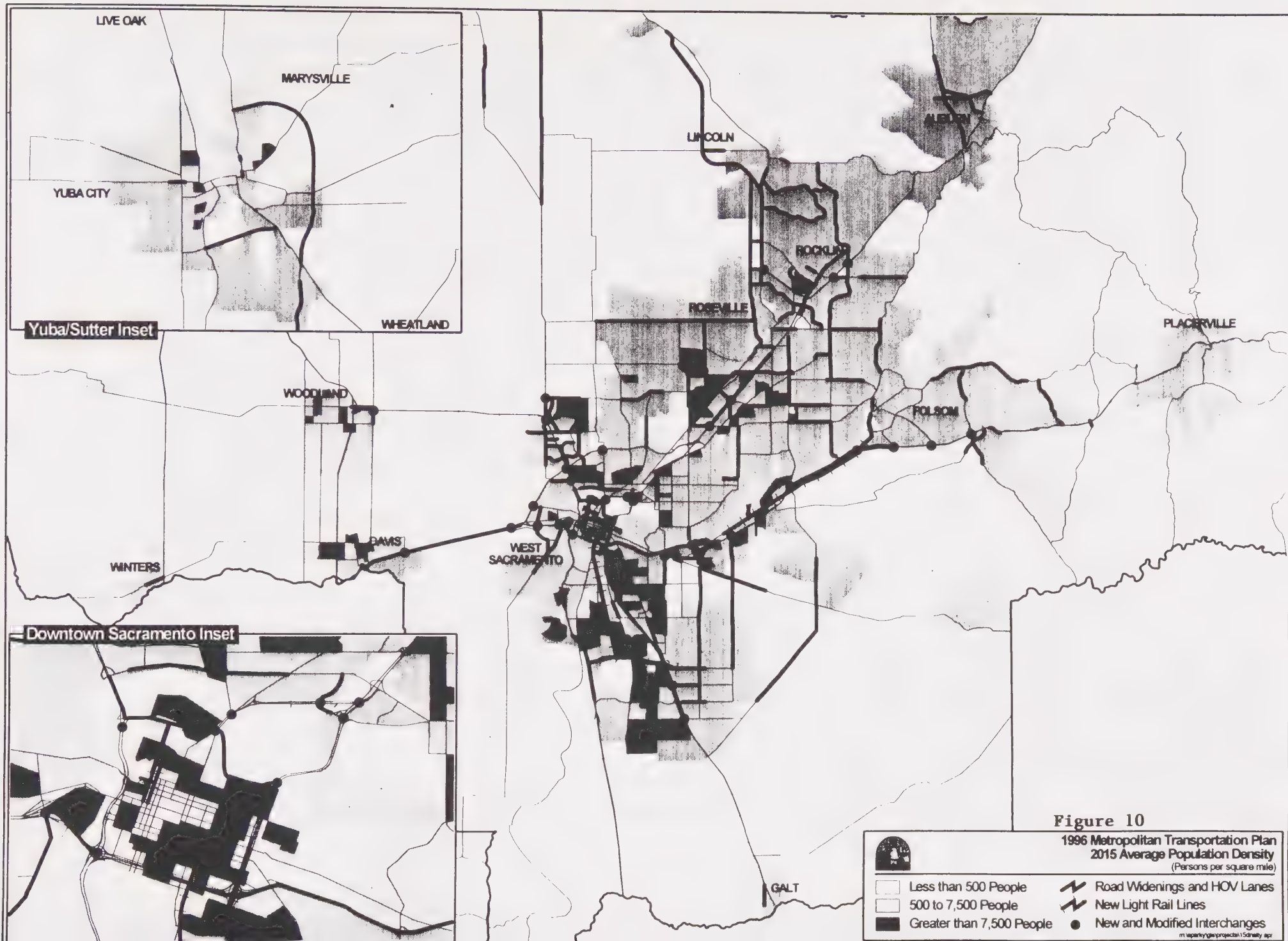
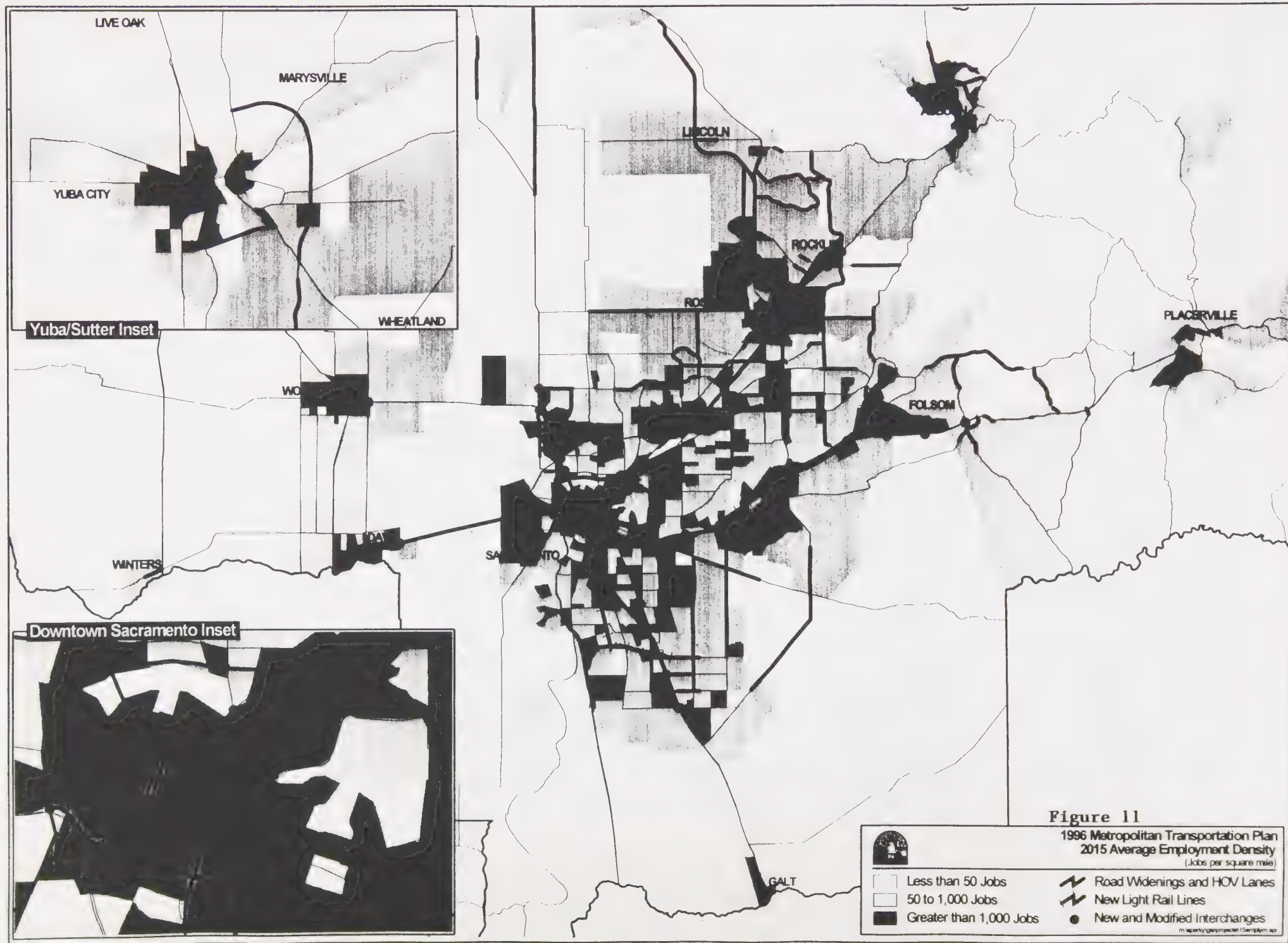


Figure 10

**1996 Metropolitan Transportation Plan
2015 Average Population Density
(Persons per square mile)**



- | | |
|---------------------------|-------------------------------|
| Less than 500 People | Road Widenings and HOV Lanes |
| 500 to 7,500 People | New Light Rail Lines |
| Greater than 7,500 People | New and Modified Interchanges |



MOBILITY AND ACCESS

INTRODUCTION

The major components of the metropolitan transportation system include three interstate highways, several state highways and local arterial roadways, a shipping port, one international airport, freight and passenger rail service, and a public transit system that includes 18 miles of light rail service.

ENVIRONMENTAL SETTING

The Metropolitan Transportation System

SACOG's planning efforts pertain to those transportation facilities and services that are deemed "regionally significant" by virtue of their size or function. Figure 12 shows this regionally significant system, called the Metropolitan Transportation System (MTS). This system was developed using criteria discussed in 1995 with SACOG's partner planning agencies. It does not include many smaller roadways, because SACOG doesn't typically get involved in planning for those facilities. In addition to what's shown in Figure 12, the MTS also includes bikeways and public transit facilities and services.

Travel Demand Forecasting

SACOG's regional demand forecasting models are used to evaluate the performance of the existing transportation system and the Preferred Option for the 1996 MTP. The Sacramento metropolitan area (SACMET) model forecasts general travel patterns and traffic volumes throughout the region's transportation network, including private vehicle traffic and public transit usage. The model uses a four-step process to produce these estimates; this process consists of the following steps:

Trip Generation: An estimate of how many trips will be made per day throughout the region.

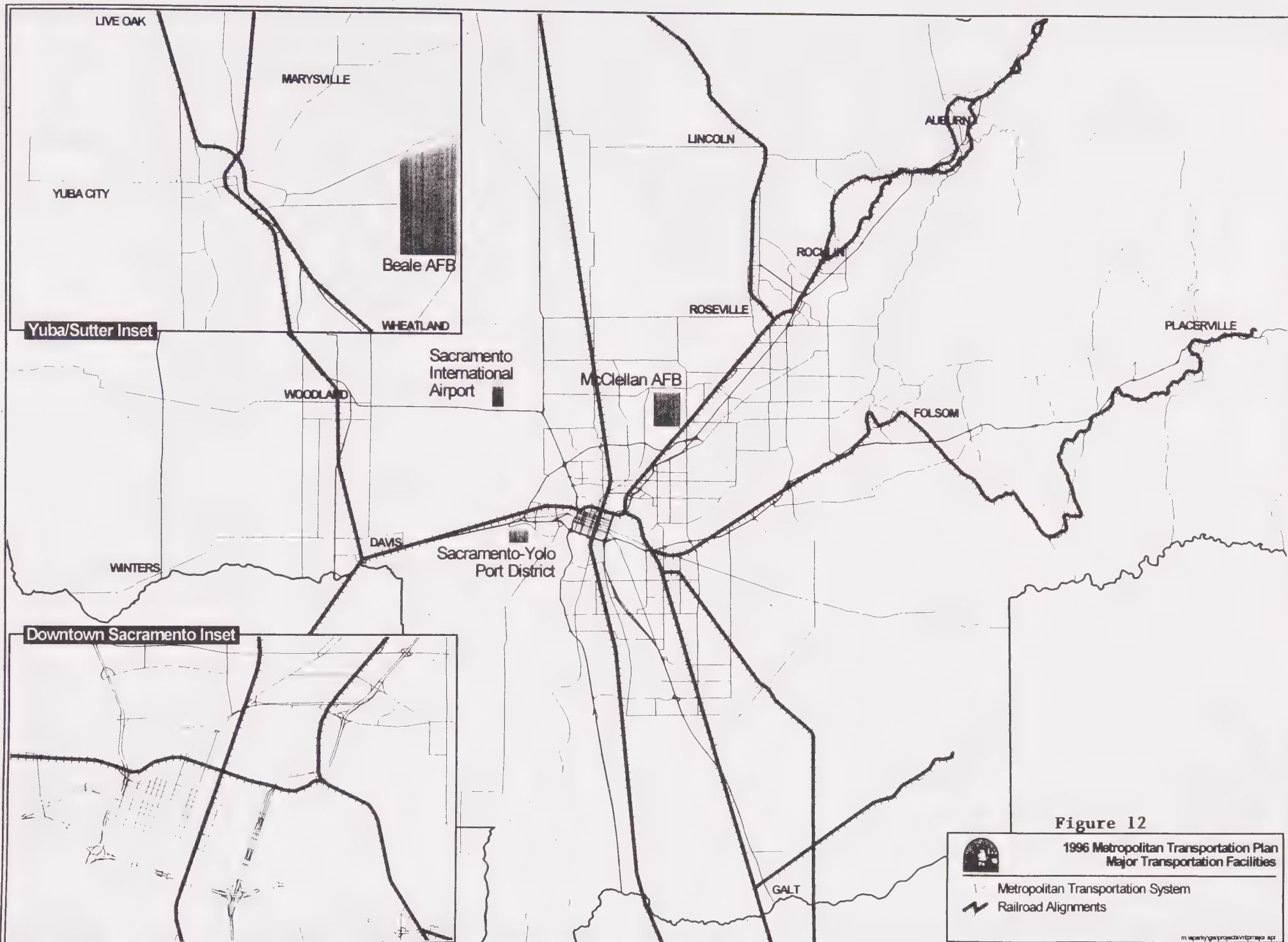
Trip Distribution: Locates the origin and destination of each trip.

Mode Choice: an estimate of how many trips will be made by people driving alone, how many in carpools, how many on non-motorized transportation modes, and how many by public transit.

Trip Assignment: A forecast of how vehicular traffic will route itself throughout the region's streets and highways, yielding estimates of how much traffic will be on each of those streets and highways. Public transit riders also are assigned to bus or rail routes, yielding estimates of public transit ridership.

A separate model is used to estimate travel characteristics of the Yuba-Sutter area transportation system. The primary difference between the SACMET model and the Yuba-Sutter area model is that there is no mode-choice process in the Yuba-Sutter model. The number of transit trips in Yuba and Sutter Counties is too small to reliably estimate in a regional forecasting model. To reflect carpooling, auto occupancy rates are assumed and used as inputs into the model, rather than having the model estimate them.

Models such as the SACMET and Yuba-Sutter models are commonly used tools for estimating travel patterns and traffic volumes on a region wide basis. Such models are not ideal for forecasting traffic volumes on individual streets, and cannot be used for analyzing intersections. The model is designed to estimate travel patterns over a wide area, where trip makers presumably have choices about where to go and how to get there. As for public transit ridership forecasts, these models are designed to forecast ridership on a system-wide basis; they are less well suited to forecasting ridership on any one particular transit route.



Note that the travel demand model used for the MTP assumes that ten percent of daily trips occur during the peak one hour during the day. The model then uses this ten percent to calculate performance indicators for congestion and delay. This process, however, may result in peak traffic characteristics that do not reflect local conditions. For example, the percent of traffic on Business 80 during the peak hour in Sacramento may not be the same as that on Route 70 in Yuba County. Also, the process does not show the direction of travel during the peak hours. Consequently, the model results tend to represent the worst-case scenario for the transportation system over the next 20 years. This scenario does not consider that the peak one hour will eventually become the peak 1 ½ hours or the peak 2 hours, as people adjust their schedules to avoid congestion during a given hour. This phenomenon, known as peak spreading, may result in less demand for transportation facilities, thereby negating the need for some facility improvements.

Although peak spreading can occur, it is not possible to determine the degree to which it will occur over the next 20 years. Given this limitation of the travel demand model, SACOG staff must analyze the environmental and transportation impact of the worst-case scenario for the Preferred Option. As new modeling and forecasting techniques are developed to improve the model's effectiveness, SACOG will include them in its modeling program.

It is important to note that the numbers resulting from the travel demand model should be used for comparison purposes only. While improvements have been made to SACOG's modeling capabilities, much work needs to take place before the model produces results that better reflect actual conditions. The model can reliably be used, however, to show differences between various options and is therefore adequate for the purposes of this environmental impact report.

SACOG Travel Behavior Survey

SACOG's travel demand modeling program produces forecasts of how much automobile use and public transit ridership can be expected in a given future year, based on certain assumptions about people's travel behavior, the region's growth patterns, and the expected transportation system in the future. In order to make reasonable assumptions on people's future travel behavior, up-to-date information is needed about current travel patterns.

SACOG conducted a region-wide survey of people's weekday travel habits and patterns in the spring and fall of 1991. The purpose of the survey was to answer a basic set of questions that transportation planners need to answer for planning and forecasting purposes, including:

- How much do people travel?
- Why do people travel?
- Where do people travel to and from?
- How do people travel?
- When do people travel?
- How long do trips take?
- How many vehicles do people own?

The results of this survey are reported in "Household Travel Survey: Report #1" (December 1992), and are summarized as follows:

- The average household generates 9 or 10 person trips each weekday, including 7 or 8 trips made in private autos.
- In total, households in the region generate about 5.5 million person trips each weekday.
- The average commute to work takes about 21 minutes, although commute times vary widely from one person to another.
- About 76% of commuters drive to work, 17 % share rides all or part way, about 2% use public transit, and another 4% walk or ride bikes.
- The number of people using public transit has more than doubled since a major region-wide survey in 1968, yet our public transit systems today carry about the same percentage of all commuters as they did in 1968.
- Our travel patterns are widely scattered and dispersed, with no single “travel path” accounting for more than 3% of the region’s daily trips.
- Since the 1968 survey, the percentage of households with two or more cars has grown from 50% to 60%, while the percentage of households without cars has plunged from 13% down to about 7%.
- About 18% of households own three or more cars.
- More than half of our cars are 1985 or newer models; about 23% are pre-1980 models, then first year that all cars sold in California had catalytic converters.
- “Rush hour” has not changed since the 1968 survey - the 7:00am hour is still the top hour for auto commute trips starting out from home, and 5:00pm is still the leading hour for people leaving work to drive home.
- The Sacramento Central Business District (CBD) draws about 13% of the region’s commute trips, about the same percentage as in 1968. Rancho Cordova attracts about 8% of the region’s commute trips each day, Eastern Sacramento attracts about 7%, and Arden-Arcade about 6%. The remaining commute trip destinations are widely scattered throughout other communities.
- Yuba-Sutter residents generally commute to local jobs in the Yuba-Sutter area; about 80% of their daily work trips go to destinations in Yuba and Sutter Counties, about 7% go to the Sacramento area, and the remainder to other destinations.

Performance Measures Used to Evaluate the Transportation System

In analyzing the performance of the existing and future transportation systems, four performance measures are used, as follows:

Roadway Measures relate to travel in vehicles on the roadway system. These measures include the number of vehicle trips made on a typical weekday, vehicle miles of travel (VMT), person miles of travel (PMT), and PMT on roadways within level-of-service (LOS) “F”. LOS “F” roadways are defined as segments forecasted to have traffic volumes at or above the capacity of the roadways.

Mode Choice Measures relate to the mode of travel chosen. Modes include solo driving, ridesharing, public transit, and non-motorized modes such as biking and walking.

Accessibility Measures combine changes in growth patterns and transportation into one measure, and

attempt to estimate how accessible the region's job base is to each community. The measures used are total jobs within 20 minutes' drive time, and within 20 minutes' public transit time. The number of jobs within this time period not only represent accessibility to employment; they also serve as proxies for accessibility to shopping and services, since many of the jobs are in the retail and service sectors. Accessibility can be increased in two ways: by increasing the number of work, shopping, or other opportunities within a given travel time, or by improving transportation to expand the area that's reachable within that travel time.

Non-motorized travel accessibility was also considered as a performance measure. Recent improvements in the travel demand model have allowed for forecasts of non-motorized mode choice. However, because the travel demand model was developed to evaluate performance of the major roadway and transit systems, the level of detail required to model the effect of specific non-motorized travel improvements at the local level is very limited. For this reason, subtle differences in non-motorized accessibility cannot reliably be forecasted. Major pedestrian and bicycle projects, generalized non-motorized accessibility provided by streets and sidewalks in newly developed areas, and the influence of mixes of residential and employment uses within communities are captured by the model. Below this level of detail, the model is not reliable for non-motorized mode choice.

Existing Conditions on the Metropolitan Transportation System

As discussed in the Population and Housing section of the EIR, population and employment are expected to increase significantly between 1995 and 2015. Region wide, population is expected to increase by about 49 percent, and employment is expected to increase by about 54 percent. On the transportation side, growth in travel is expected as a result of these increases in population and employment.

According to the information in Table 2, the number of daily vehicle trips are forecasted to increase by 51 percent, and vehicle and person miles are forecasted to increase by 59 and 60 percent, respectively. Because so much of the travel is expected to occur during limited hours - meaning the daily peak periods - daily person miles of travel in congested conditions (LOS "F") is expected to be nearly five times greater in 2015 than it was in 1995.

The share of travel occurring on each mode - known as the mode split - is expected to increase by similar rates to population and employment growth. The number of people who drive alone is expected to increase by 51 percent between 1995 and 2015, shared-ride trips will increase by 53 percent, transit trips will increase by 44 percent, and non-motorized trips will increase by 45 percent.

*Figure 13
Expected Growth in Travel in the Sacramento
Metropolitan Area*

<u>Roadway Measures</u>	<u>1995</u>	<u>2015</u>
Vehicle Trips	4,720,857	6,913,873
Vehicle Miles	39,220,298	62,475,108
Person Miles	47,069,508	75,106,425
Person Miles in LOS "F"		
Conditions	439,331	2,500,652
<u>Mode Choice Measures (Daily Person Trips)</u>		
All Modes	7,062,326	10,697,036
Drive Alone	3,476,233	5,259,114
Shared Ride	2,909,899	4,460,259
Transit	64,118	92,396
Non-Motorized . . .	612,076	885,267
<u>Accessibility Measures</u>		
# of Jobs within a		
20-minute drive .	246,861	238,993
# of Jobs within a		
20-minute transit		
trip	12,193	10,862

Accessibility measures show that the number of jobs within a 20-minute drive of the average household is expected to decrease by about three percent between 1995 and 2015, and the number of jobs within a 20-minute transit trip will decrease by about 11 percent.

POTENTIAL ENVIRONMENTAL IMPACTS

Within this report, the analysis of different environmental categories (such as air quality and biological resources) compares the Preferred Option to the conditions which existed in 1995 (existing conditions). This approach is logical because of the need to preserve our current environmental resources to the extent possible. It is misleading, however, to discuss Mobility and Access in the context of conditions that existed in 1995 because of the growth that will occur by 2015. Given the projected population and employment growth that is anticipated, it is not reasonable to expect that the number of trips and vehicle miles traveled will remain constant. Therefore, transportation measures are discussed in this report in the following manner:

- What conditions can we expect on the metropolitan transportation system in 2015 if only minimum improvements are made (2015 Current Plan Constrained option)?
- How might the Preferred Option (and other alternatives) improve or degrade mobility on the metropolitan transportation system compared to the 2015 constrained option?

Criteria for Significance

A mobility impact will be considered significant if implementation of the Preferred Option would potentially result in a substantial increase or decrease in the performance measures compared to projected 2015 conditions under the constrained plan option. Small differences in the performance measures would generally be well within the margin of error for the travel demand model and would therefore be considered less than significant.

Table 2 shows the performance of the Preferred Option using the various measures identified in the Environmental Setting.

Table 2
Transportation System Performance in the Sacramento Metropolitan Area

	1995 Base Year	2015 Current Plan Constrained	2015 Preferred Option	% Change Preferred vs. Constrained
Roadway Measures				
Vehicle Trips	4,720,857	6,913,873	6,923,543	+0.1
Vehicle Miles	39,220,298	62,475,108	62,551,599	+0.1
Person Miles	47,069,508	75,106,425	72,241,735	+0.1
Person Miles in LOS "F" Conditions	439,331	2,500,652	2,094,044	-16.3

Table 2
Transportation System Performance in the Sacramento Metropolitan Area

	1995 Base Year	2015 Current Plan Constrained	2015 Preferred Option	% Change Preferred vs. Constrained
Mode Choice Measures				
All Modes	7,062,326	10,697,036	10,703,183	--
Drive Alone	3,476,233	5,259,114	5,254,573	--
Shared Ride	2,909,899	4,460,259	4,464,110	--
Transit	64,118	92,396	95,925	+3.8
Non-Motorized	612,076	885,267	888,575	+0.3
Accessibility Measures				
# of Jobs within a 20-minute drive	246,861	238,993	253,404	+6.0
# of Jobs within a 20-minute transit trip	12,193	10,862	16,074	+48.0

Under the Preferred Option, *vehicle trips*, *vehicle miles of travel*, and *person miles of travel* increase by 0.1 percent. This is considered a less-than-significant impact.

Person miles in LOS "F" conditions would decrease by 16.3 percent. Because one of the stated objectives of the MTP is to reduce congestion and improve mobility, this is considered a significant beneficial impact.

Daily person trips on any mode would increase from 0 to 3.8 percent under the Preferred Option. This is considered a less-than-significant impact.

The number of jobs located within a 20-minute drive and a 20-minute transit trip would increase by 6.0 percent and 48.0 percent, respectively. Because one of the stated objectives of the MTP is to increase access to jobs and services in the region, this is considered a significant beneficial impact.

Recommended Mitigation

None required.

AIR QUALITY

INTRODUCTION

The Sacramento metropolitan area faces two problems concerning air pollution. First, there's the pollution itself - air that is sometimes dirtier than the law allows, and that is unhealthy for many people to breathe. Then there's a second problem. If a plan cannot be developed to clean the air as much as the law requires, businesses may face some very tough controls imposed by the federal government. The controls may force small businesses like bakeries and painting contractors to spend so much money on pollution-control devices that many fear it will force them out of business. Trucking firms may be required to replace engines at such a high cost that they, too, fear for their economic survival.

ENVIRONMENTAL SETTING

Air Pollutants and Standards

The three major types of air pollution in the Sacramento metropolitan area are ozone, carbon monoxide, and "particulate matter," or dust.

Ozone pollution is created by chemicals that come from many sources, including mobile sources such as cars, buses, trucks, trains, construction vehicles, farm vehicles, airplanes, motorcycles, boats, and dirt bikes. Ozone is an odorless and invisible pollutant that is not emitted directly by human sources. Instead, ozone comes from the reaction of *hydrocarbons* (HC), or reactive organic gases (ROG), and *nitrogen oxide* (NOx) in the presence of sunlight and heat. Although ozone is the air contaminant for which standards are set, HC and NOx are the pollutants that must be controlled.

Health researchers have found that exposure to ozone can cause decreases in lung function, and studies suggest that symptoms of lung disease may be related to repeated exposure to ozone concentrations above current standards. Ozone also reduces resistance to colds and pneumonia, and aggravates heart disease, asthma, bronchitis, and emphysema. Because ozone also interferes with the photosynthesis process necessary for plant growth, it poses a danger to agricultural economies that depend on stable conditions.

Carbon monoxide is mostly a wintertime problem in the Sacramento urbanized area. It is a highly toxic, odorless, colorless gas which binds to hemoglobin in the bloodstream in the place of oxygen molecules. By reducing the oxygen-carrying potential of blood, CO causes heart difficulties in people with chronic diseases, reduces lung capacity, impairs mental functioning, and may aggravate arteriosclerosis. Primarily formed by incomplete automobile fuel combustion, CO is primarily a local pollutant that creates individual "hot spots," or small areas where CO concentrations are high.

Particulate matter refers to finely divided solids or liquids such as soot, dust, aerosols, and mists. Suspended particulates aggravate chronic heart and lung disease problems, produce respiratory problems, and often transport toxic elements such as lead, cadmium, antimony, arsenic, nickel, vinyl chloride, asbestos, and benzene compounds. Suspended particulates also absorb sunlight, producing haze and reducing visibility.

The Federal Clean Air Act established National Ambient Air Quality Standards for several primary pollutants. These standards are designed to protect the public health. In addition, the State of California has adopted its own standards. Both federal and state standards are listed in table 3.

Table 3
Ambient Air Quality Standards

Pollutant	Average Time	California Standard	National Standard
Ozone	1 hour	0.09 ppm	0.12 ppm
Carbon Monoxide	8 hours	9.00 ppm	9.00 ppm
	1 hour	20.00 ppm	35.00 ppm
Nitrogen Dioxide	annual average	--	0.53 ppm
	1 hour	0.25 ppm	--
Particulate Matter	annual geometric mean	30 ug/m ³	--
	24 hours	50 ug/m ³	150 ug/m ³
	annual arithmetic mean	--	50 ug/m ³

ppm = parts per million ug/m³ = micrograms per cubic meter

California standards for these pollutants are values not to be exceeded.

National standards, other than ozone and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum concentrations above the standard is equal to or less than one.

Regulatory Structure and Responsibilities

Responsibility for air quality planning involves a wide variety of agencies and groups at the federal, state, regional, and local levels. Some of these agencies have actual regulatory authority, while others are responsible for development and implementation of programs and procedures aimed at reducing air pollution levels.

The **U.S. Environmental Protection Agency (EPA)** is the lead federal agency and is responsible for setting the National Ambient Air Quality Standards (NAAQS) and for establishing federal motor vehicle emission standards. The EP also has the authority under the Clean Air Act to require preparation of state plans for air quality and may approve or disapprove state air quality plans.

The **California Air Resources Board (CARB)** is the lead state agency and is responsible for preparing and submitting a state air quality plan to EPA. In preparing the state plan, CARB reviews and approves regional air quality plans and then incorporates them into a State Implementation Plan (SIP).

With regard to mobile-source control measures, CARB establishes emission standards for on-road motor vehicles sold in California. These standards are more stringent than the federal standards. With respect to stationary- and area-source control measures, CARB works closely with county air pollution control districts (APCDs) and air quality management districts (AQMDs) in the development of model station- and area-source rules for possible adoption by individual districts. In addition, the CARB works closely with the air districts in controlling pollution from agricultural burning. The primary role is to determine permissible burn days and to fund research toward alternatives to or reducing agricultural burning.

The **Bureau of Automotive Repair (BAR)** in the California Department of Commerce is responsible for operation of the motor vehicle inspection and maintenance program. This program, commonly known as the Smog Check program, requires biennial inspection and testing of motor vehicle smog control devices as a condition of vehicle registration.

The **California Department of Transportation** (Caltrans) is responsible, along with local cities and counties, for determining the feasibility and implementation of certain transportation control measures such as freeway ramp metering and carpool lanes.

SACOG is the lead agency for the preparation of federal air quality plans for the Sacramento Air Quality Maintenance Area (AQMA). The 1990 amendments to the Federal Clean Air Act require SACOG to determine the conformity of transportation plans and transportation improvement programs with the locally adopted portion of the SIP. Proposed transportation improvements must come from a conforming long-range transportation plan or transportation improvement program in order to receive federal funding.

Air districts have primary responsibility for preparation, adoption, and implementation of mobile, stationary, and area emission control measures. The air districts in the Sacramento AQMA are the Sacramento Metropolitan Air Quality Management District (SMAQMD), Yolo-Solano Air Pollution Control District, the Feather River Air Quality Management District (FRAQMD), the Placer County Air Pollution Control District, and the El Dorado County Air Pollution Control District.

Air Pollution Monitoring

CARB maintains air quality monitoring stations throughout the state in conjunction with local APCDs. Data collected at these stations is used by CARB to classify air basins as “attainment” or “non-attainment” with respect to each pollutant and to monitor progress in attaining air quality standards. Table 4 lists each of the monitoring sites and shows the number of days on which state standards were exceeded, by pollutant, at each station. Figure 14 shows the approximate location of each monitoring station.

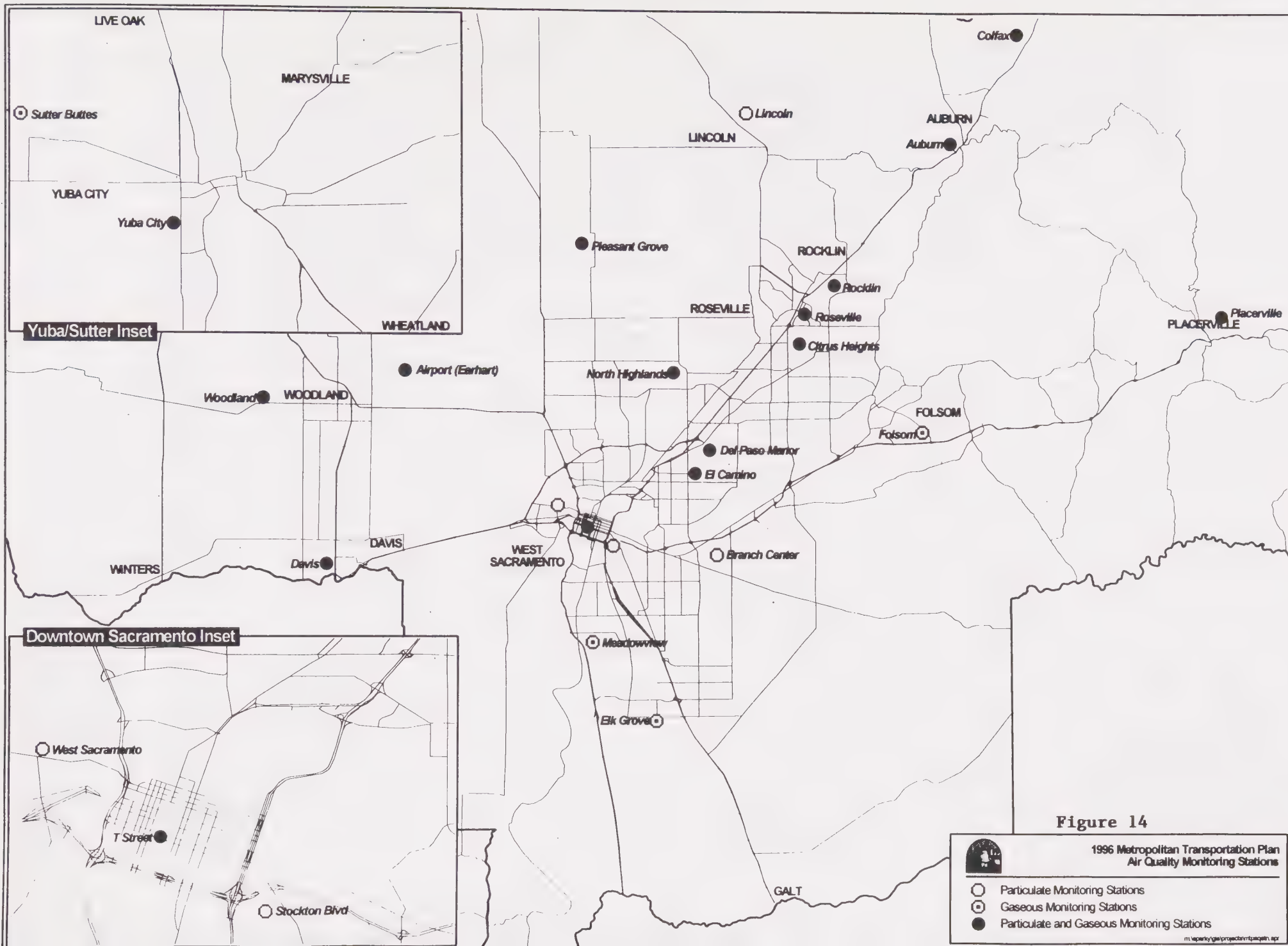


Table 4
AIR QUALITY LEVELS MEASURED AT AMBIENT AIR MONITORING STATIONS*

Pollutant & Criteria		Citrus Heights Sunrise Boulevard		North Highlands Blackfoot		Sacramento Del Paso Manor		Sacramento Meadowview Road	
State Standard	Year	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded
OZONE (O₃)									
9 ppm over 1 hour	1993	.07 ppm	0 days	.11 ppm	7 days	.15 ppm	16 days	.10 ppm	1 day
	1992	.13 ppm	21 days	.12 ppm	3 days	.13 ppm	21 days	.11 ppm	4 days
	1991	.15 ppm	23 days	.13 ppm	9 days	.18 ppm	27 days	.12 ppm	11 days
INHALABLE PARTICULATE MATTER (PM₁₀) ***									
50 ug/m ³ over 24 hrs	1993	61 ug/m ³	2 days	63 ug/m ³	7 days	118 ug/m ³	7 days	--	--
	1992	89 ug/m ³	10 days	79 ug/m ³	6 days	84 ug/m ³	5 days	--	--
	1991	98 ug/m ³	15 days	96 ug/m ³	5 days	127 ug/m ³	5 days	--	--
CARBON MONOXIDE (1-HOUR CONCENTRATION)									
20 ppm over 1 hour	1993	7 ppm	0 days	6 ppm	0 days	10 ppm	0 days	--	--
	1992	9 ppm	0 days	7 ppm	0 days	9 ppm	0 days	--	--
	1991	8 ppm	0 days	9 ppm	0 days	11 ppm	0 days	--	--
CARBON MONOXIDE (8-HOUR CONCENTRATION)									
9.0 ppm over 8 hrs	1993	5.6 ppm	0 days	3.7 ppm	0 days	8.0 ppm	0 days	--	--
	1992	5.1 ppm	0 days	3.9 ppm	0 days	7.3 ppm	0 days	--	--
	1991	5.9 ppm	0 days	5.3 ppm	0 days	8.0 ppm	0 days	--	--
Pollutant & Criteria		Sacramento El Camino/Watt		Sacramento H.D. Stockton Blvd.		West Sacramento Broderick		Rocklin Sierra College	
State Standard	Year	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded
OZONE (O₃)									
9 ppm over 1 hour	1993	--	--	--	--	--	--	.15 ppm	4 days
	1992	--	--	--	--	--	--	.17 ppm	12 days
	1991	--	--	--	--	.07 ppm	0 days	.13 ppm	7 days
INHALABLE PARTICULATE MATTER (PM₁₀)									
50 ug/m ³ over 24 hrs	1993	--	--	75 ug/m ³	9 days	78 ug/m ³	10 days	41 ug/m ³	0 days
	1992	--	--	85 ug/m ³	5 days	106 ug/m ³	11 days	48 ug/m ³	0 days
	1991	--	--	98 ug/m ³	14 days	136 ug/m ³	19 days	68 ug/m ³	1 days
CARBON MONOXIDE (1-HOUR CONCENTRATION)									
20 ppm over 1 hour	1993	12 ppm	0 days	--	--	--	--	4 ppm	0 days
	1992	11 ppm	0 days	--	--	--	--	9 ppm	0 days
	1991	15 ppm	0 days	--	--	--	--	4 ppm	0 days
CARBON MONOXIDE (8-HOUR CONCENTRATION)									
9.0 ppm over 8 hrs	1993	9.4 ppm	1 days	--	--	--	--	2.3 ppm	0 days
	1992	8.6 ppm	0 days	--	--	--	--	2.3 ppm	0 days
	1991	12.3 ppm	6 days	--	--	--	--	3.3 ppm	0 days
* State standards for sulfur dioxide (SO ₂), nitrogen dioxide (NO ₂), and lead (Pb) were not exceeded. Source: California Air Resources Board, <i>Air Quality Data</i> , 1991-1993.									
						ppm = parts per million; ug/m ³ = micrograms per cubic meter.			

Table 4
AIR QUALITY LEVELS MEASURED AT AMBIENT AIR MONITORING STATIONS*

Pollutant & Criteria		Roseville 151 North Sunrise		Elk Grove Bruceville Rd.		Sacramento International Airport (Earheart)		Sacramento 1309 T Street	
State Standard	Year	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded
OZONE (O₃)									
.09 ppm over 1 hour	1993	.15 ppm	14 days	.10 ppm	3 days	.13 ppm	2 days	.13 ppm	4 days
	1992	--	--	--	--	.12 ppm	15 days	.12 ppm	11 days
	1991	--	--	--	--	.12 ppm	21 days	.14 ppm	8 days
INHALABLE PARTICULATE MATTER (PM₁₀)									
50 ug/m ³ over 24 hrs	1993	52 ug/m ³	1 days	--	--	104 ug/m ³	5 days	77 ug/m ³	11 days
	1992	ug/m ³	days	--	--	62 ug/m ³	2 days	72 ug/m ³	8 days
	1991	ug/m ³	days	--	--	76 ug/m ³	3 days	134 ug/m ³	25 days
CARBON MONOXIDE (1-HOUR CONCENTRATION)									
20 ppm over 1 hour	1993	6 ppm	0 days	--	--	5 ppm	0 days	12 ppm	0 days
	1992	---	---	--	--	6 ppm	0 days	12 ppm	0 days
	1991	---	---	--	--	10 ppm	0 days	12 ppm	0 days
CARBON MONOXIDE (8-HOUR CONCENTRATION)									
9.0 ppm over 8 hrs	1993	2.8 ppm	0 days	--	--	31 ppm	0 days	9.4 ppm	1 days
	1992	---	---	--	--	38 ppm	0 days	6.5 ppm	0 days
	1991	---	---	--	--	7.3 ppm	0 days	9.6 ppm	2 days
Pollutant & Criteria		Placerville Station		Colfax City Hall		Lincoln		Sacramento County Branch Center	
State Standard	Year	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded
OZONE (O₃) **									
.09 ppm over 1 hour	1993	.12 ppm	10 days	.12 ppm	9 days	--	--	--	--
	1992	.12 ppm	29 days	.13 ppm	17 days	--	--	--	--
	1991	---	---	.06 ppm	0 days	--	--	--	--
INHALABLE PARTICULATE MATTER (PM₁₀)									
50 ug/m ³ over 24 hrs	1993	62 ug/m ³	1 days	44 ug/m ³	0 days	58 ug/m ³	3 days	70 ug/m ³	3 days
	1992	103 ug/m ³	1 days	47 ug/m ³	0 days	80 ug/m ³	2 days	71 ug/m ³	6 days
	1991	---	---	58 ug/m ³	2 days	82 ug/m ³	5 days	95 ug/m ³	9 days
CARBON MONOXIDE (1-HOUR CONCENTRATION)									
20 ppm over 1 hour	1993	2 ppm	0 days	--	--	--	--	--	--
	1992	2 ppm	0 days	--	--	--	--	--	--
	1991	---	---	--	--	--	--	--	--
CARBON MONOXIDE (8-HOUR CONCENTRATION)									
9.0 ppm over 8 hrs	1993	1.5 ppm	0 days	--	--	--	--	--	--
	1992	2.1 ppm	0 days	--	--	--	--	--	--
	1991	---	---	--	--	--	--	--	--

* State standards for sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and lead (Pb) were not exceeded.
Source: California Air Resources Board, *Air Quality Data*. 1991-1993.

ppm = parts per million; ug/m³ = micrograms per cubic meter

Table 4
AIR QUALITY LEVELS MEASURED AT AMBIENT AIR MONITORING STATIONS*

Pollutant & Criteria		Yuba City AG Building		Auburn De Witt C Avenue		Woodland W Main Street		Davis UC Davis	
State Standard	Year	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded
OZONE (O₃)									
9 ppm over 1 hour	1993	.10 ppm	1 days	.12 ppm	15 days	.12 ppm	1 days	.13 ppm	1 days
	1992	.12 ppm	23 days	.14 ppm	36 days	.11 ppm	9 days	.12 ppm	9 days
	1991	.11 ppm	5 days	.13 ppm	25 days	.10 ppm	4 days	.10 ppm	2 days
INHALABLE PARTICULATE MATTER (PM₁₀)									
50 ug/m ³ over 24 hrs	1993	78 ug/m ³	11 days	42 ug/m ³	0 days	96 ug/m ³	9 days	--	--
	1992	79 ug/m ³	13 days	51 ug/m ³	1 days	103 ug/m ³	16 days	--	--
	1991	108 ug/m ³	22 days	49 ug/m ³	0 days	102 ug/m ³	10 days	--	--
CARBON MONOXIDE (1-HOUR CONCENTRATION)									
20 ppm over 1 hour	1993	10 ppm	0 days	--	--	6 ppm	0 days	--	--
	1992	9 ppm	0 days	--	--	7 ppm	0 days	--	--
	1991	12 ppm	0 days	--	--	7 ppm	0 days	--	--
CARBON MONOXIDE (8-HOUR CONCENTRATION)									
9.0 ppm over 8 hrs	1993	7.3 ppm	0 days	--	--	3.4 ppm	0 days	--	--
	1992	6.3 ppm	0 days	--	--	3.9 ppm	0 days	--	--
	1991	8.5 ppm	0 days	--	--	3.5 ppm	0 days	--	--

Pollutant & Criteria		Folsom		Sutter County Pleasant Grove		Sutter County Sutter Buttes	
State Standard	Year	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded	Maximum Level	Days State Standard Exceeded
OZONE (O₃)							
9 ppm over 1 hour	1993	.15 ppm	0 days	.14 ppm	4 days	.12 ppm	11 days
	1992	.15 ppm	42 days	.12 ppm	12 days	--	--
	1991	.19 ppm	52 days	.10 ppm	7 days	--	--
INHALABLE PARTICULATE MATTER (PM₁₀)							
50 ug/m ³ over 24 hrs	1993	--	--	--	--	--	--
	1992	--	--	--	--	--	--
	1991	--	--	--	--	--	--
CARBON MONOXIDE (1-HOUR CONCENTRATION)							
20 ppm over 1 hour	1993	--	--	--	--	--	--
	1992	--	--	--	--	--	--
	1991	--	--	--	--	--	--
CARBON MONOXIDE (8-HOUR CONCENTRATION)							
9.0 ppm over 8 hrs	1993	--	--	--	--	--	--
	1992	--	--	--	--	--	--
	1991	--	--	--	--	--	--

* State standards for sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and lead (Pb) were not exceeded.
Source: California Air Resources Board, *Air Quality Data*, 1991-1993.

ppm = parts per million; ug/m³ = micrograms per cubic meter.

Emission Sources

Emissions in the Sacramento ozone nonattainment area are divided into two major categories: stationary source emissions and mobile source emissions. Stationary source emissions are further broken down into point and area sources, while mobile source emissions are broken down into on-road and other sources.

Point sources, which include major, identifiable pollution sources such as industrial facilities and operations, are singled out due to the quantity or nature of their emissions. Point sources can emit significant quantities of any of five major primary pollutants: total organic gases (TOG), reactive organic gases (ROG) or volatile organic compounds (VOC), nitrogen oxides (NOx), total suspended particulates (TSP), and sulfur dioxide (SO₂), and sometimes other toxic materials. Emissions data from point sources are obtained through evaluation of the emission characteristics of the individual source as reported by air pollution control districts to the California Air Resources Board.

Area sources are numerous small or dispersed sources which emit individually small but collectively large amounts of pollutants over a broad geographic area. Emissions from area sources can be determined in a variety of ways. One method is to survey supplies or distributors of an emission source product, such as organic solvents, in order to obtain county-wide usage. Another way is to evaluate the emission characteristics of a single representative emission source, such as a gasoline-powered lawn mower, and then estimate the total number of such sources in a county.

On-road mobile sources, which include all categories of on-road vehicles, including trucks and motorcycles, are singled out in the emission inventory due to the quantity and type of the emissions. On-road mobile sources contribute to Sacramento's ozone non-attainment problem. On-road mobile sources emit significant amounts of four of the primary pollutants: total organic gases (TOG), reactive organic gases (ROG) or volatile organic compounds (VOC), carbon monoxide (CO), and nitrogen oxides (NOx). Emissions data from on-road mobile sources are obtained through evaluation of the emission characteristics of the entire vehicle fleet. Each on-road mobile source has its own set of vehicle emission characteristics which are then used to generate the on-road mobile source emissions inventory.

Other mobile sources, which include off-road vehicles, trains, aircraft, mobile and utility equipment, comprise the balance of the mobile source emissions. Other mobile emissions are shown separately in the inventory because they represent a much smaller percentage of the mobile source problem and because there are fewer controls on these sources versus on-road sources. These categories will be looked at more closely for potential emission reductions under the California Clean Air Act. Emissions from other mobile sources are also obtained through evaluation of the emission characteristics of each source of emissions. Each category of other mobile source emissions has its own set of emission characteristics which are then used to generate the other mobile emissions inventory. Other mobile emission sources emit significant quantities of four of the primary pollutants: total organic gases (TOG), reactive organic gases (ROG), carbon monoxide (CO), and nitrogen oxides (NOx).

Baseline and Future Year Emission Inventories and Trends - Sacramento Ozone Nonattainment Area Emissions Data (1990 and 1996)

VOC emission estimates for the Sacramento ozone nonattainment area for the years 1990 and 1996 are shown in Table 5. The emission inventory is broken down into point, area, on-road and off-road mobile sources. Total VOC emissions in 1990 are estimated to be 208 tons/day. This figure is projected to decline to 172 tons/day in 1996, for a decrease of 17% between 1990 and 1996.

Table 5
Volatile Organic Compounds (VOC) Emission Trends ,1990-1996

EMISSION INVENTORY	1990 (Tons /Day)	1996 (Tons/Day)
TOTAL	207.58	170.93
STATIONARY		
Point	9.53	9.50
Area	69.23	75.69
MOBILE		
On-Road	102.91	56.82
Off-Road	25.91	28.92

Source: ARB/EMFAC7F/BURDEN 7F Run date 8/20/93

Area sources are projected to become the predominant source of VOC emissions within the Sacramento ozone nonattainment area. By 1996, area sources will account for approximately 44 percent of all VOC emissions, with on-road mobile accounting for 33 percent, off-road mobile accounting for 17 percent, and point sources accounting for the remaining 6 percent.

The shift from on-road mobile sources dominating the 1990 inventory to area sources being dominant in 1996 is expected to occur as a result of higher use of cleaner automobiles and increasing emissions from area sources, which are affected by population growth.

Air Toxics

The U.S. Environmental Protection Agency refers to chemicals that cause serious health and environmental hazards as hazardous air pollutants or air toxics. Air toxics are released from sources throughout the country, including motor vehicles, stationary sources such as industrial/manufacturing plants, and area sources such as dry cleaners and auto paint shops¹. Until recently, little data were available to assess the amounts, types and health effects of toxic chemicals released into the air and the potential risk to the exposed population. The Air Toxics "Hot Spots" Information and Assessment Act of 1987 mandated the implementation of a program to collect and evaluate information concerning the amounts, exposures, and short- and long-term health effects of hazardous substances regularly released into the atmosphere from specific sources.

In a July 1992 report², the California Department of Toxic Substances Control identified several strategies with regard to pollution prevention approaches for mobile-source related air pollution, which are expected to achieve reductions in toxic air emissions. These strategies include transportation control measures, indirect source review programs, and mobile-source regulations.

Transportation Control Measures: TCM strategies are designed to reduce vehicle miles traveled and trips, and to increase vehicle occupancy. These goals are achieved by developing attractive and convenient alternatives to single-occupant vehicle use. Examples of TCMs include ridesharing programs, transportation infrastructure improvements such as adding bicycle and carpool lanes, and expansion of public transit.

¹ U.S. Environmental Protection Agency, *The Plain English Guide to the Clean Air Act*, April 1993.

² California Department of Toxic Substances Control, *Pollution Prevention in California: An Overview of California's Pollution Prevention Programs and Technologies*, July 1992.

Indirect Source Review Programs: Indirect sources are facilities that attract or generate motor vehicle activity, such as commercial areas or shopping malls, entertainment venues, or tourist attractions. California clean air legislation and regulations require indirect sources to mitigate their impact where necessary to attain the State's clean air standards. To this end, local governments and regulatory agencies require at the design phase of such proposed projects the incorporation of features that will reduce the need for vehicle trips to and from the source. Such features can include improved transit access, mixed land uses to enable workers to live in closer proximity to jobs, and aggressive public information and marketing efforts to educate the public on the availability of alternatives to single-occupancy vehicle use.

Mobile-Source Regulation: The State of California is responsible for controlling emissions from the operation of motor vehicles in the state. Rather than mandating the use of specific technology or the reliance on a specific fuel, the ARB's motor vehicle standards specify the allowable grams of pollution per mile driven. In other words, the regulations focus on the reductions needed rather than on the manner in which they are achieved. Towards this end, the California Air Resources Board has adopted regulations which require auto manufacturers to phase in less polluting vehicles between 1994 and 2003.

In addition, the ARB has implemented a program that will result in the introduction of cleaner gasoline and diesel fuel, as well as alternative fuels. In Spring 1996, reformulated gasoline will be sold throughout California in an effort to reduce mobile-source emissions. According to ARB, cleaner-burning gasoline lowers emissions of pollutants that contribute to health problems such as heart and lung disease and asthma and reduces cancer risk from gasoline emissions by more than one-third. The recipe for reformulated gasoline requires more cleaner-burning components and fewer toxic compounds. In summary, reformulated gasoline does the following³:

- Reduces benzene emissions by one-half
- Lowers the amount of fuel that evaporates from vehicles
- Reduces the amount of sulfur in gasoline by 80 percent, which allows the car's catalyst to perform more effectively
- Reduces aromatic hydrocarbons that contribute to smog-forming emissions
- Adds oxygen-containing compounds, which allow gasoline to burn more efficiently and consequently produce less emissions.

Because air toxic emissions are generally the result of incomplete combustion of fuel in automobile engines, the cleaner fuel is expected to contribute to mobile-source reductions in air toxic emissions⁴.

Emissions from Construction-Related Activities

Construction-related emissions are produced by two main sources: construction equipment and fugitive dust generated by excavation and grading. Although these activities and emissions would last only a short time, they may be troublesome to persons in the adjacent areas.

Table 6 shows the U.S. Environmental Protection Agency's projected emissions for heavy-duty diesel powered construction equipment.

³ Information provided on the California Energy Commission's World Wide Web site at "<http://www.energy.ca.gov>."

⁴ U.S. Environmental Protection Agency, *The Plain English Guide to the Clean Air Act*, April 1993.

Table 6
Emissions from Heavy-Duty Diesel-Powered Construction Equipment (lbs/day)

Equipment	Hydrocarbons	Nitrogen Oxides	Carbon Monoxide	Particulates
Tracktype Tractor	2.8	1.0	10.1	0.9
Wheeled Tractor	28.6	1.5	10.1	1.1
Wheeled Dozer	--	--	--	1.3
Scraper	10.0	2.3	30.7	3.2
Motor Grader	1.2	0.3	0.4	0.5
Wheeled Loader	4.6	2.0	15.1	1.4
Tracktype Loader	1.6	0.8	6.6	0.5
Off-Highway Truck	14.4	1.5	33.3	2.0
Roller	2.4	0.5	6.9	0.4
Miscellaneous	5.4	1.2	13.5	1.1

Source: U.S. Environmental Protection Agency, EPA-AP-42, Volume II, September 1985.

POTENTIAL ENVIRONMENTAL IMPACTS

The purpose of this section is to compare potential air quality impacts associated with the Preferred Option against the 1995 base year. Base year and future year (2015) emission estimates were developed using a micro-computer version of the Direct Travel Impact Model (DTIM). Inputs to DTIM include outputs (e.g. vehicle miles of travel by speed group, number of vehicle trips, vehicle hours of delay, etc.) from SACOG's travel demand models (the travel demand models are described in the Mobility and Access section of this report) and emission factors from the California Air Resources Board. DTIM then calculates on-road mobile source emissions using these inputs.

Criteria for Significance

Short-Term Construction Impacts: Short-term construction activities associated with implementation of the Preferred Option will be considered to be significant and adverse if they are expected to contribute significant amounts of criteria pollutants.

Long-Term Regional Mobile-Source Emissions: State and federal clean air laws require that emissions of pollutants for which national or state ambient air quality standards are violated be reduced under current levels. Therefore, regional ozone precursor, carbon monoxide, and particulate matter emissions must contribute to a reduction in emissions from the 1995 levels. Projected emissions that are equal to or greater than 1995 emission levels will be considered a significant adverse impact.

Potential Air Quality Impacts

Short-Term Construction Impacts: Gasoline and diesel exhausts from construction equipment include emissions associated with onsite construction machinery. The greatest generation of emissions from construction equipment would occur during ground excavation and clearing. Exact emission levels will vary with the type of equipment used, the duration of use, construction schedules, and the number of workers on site. Similarly, fugitive dust emissions from construction work sites is also a function of

several variables, including the amount of dirt excavated or graded, composition of soils, and type of equipment used. The demolition of any existing structures on a project site, excavation of earth, and transport of excavated materials off-site will likely create fugitive dust emissions.

During the construction of transportation projects included in the Preferred Option, construction equipment is expected to produce hydrocarbon, nitrogen oxide, carbon monoxide, and particulate emissions. These emissions will be specific to particular projects and depend on a number of factors that are not known until specific environmental and engineering studies are completed. Therefore, it is not possible at this time to determine the level of significance of these potential emissions. The project-specific environmental documentation for transportation projects and programs in the Preferred Option will determine the level of potential impact and develop appropriate mitigation measures once precise project location, size, and designs are developed.

Long-Term Regional Mobile-Source Emissions: Table 7 shows projected emissions of hydrocarbons, nitrogen oxides, carbon monoxide, and particulate emissions for the Preferred Option compared with the 1995 base year.

Table 7
Regional Mobile-Source Emissions Projected for the Preferred Option

Pollutant	1995	2015	Increase or Decrease
Hydrocarbons	71.24	16.71	Decrease
Nitrogen Oxides	99.12	52.92	Decrease
Carbon Monoxide	657.39	286.10	Decrease
Particulate Matter	43.65	72.05	Increase

Source: SACOG, April 1996, based on combined SACMET and Yuba/Sutter travel demand model outputs. Emissions using DTIM2 software, with EMFAC7f emission factors, SACMET and Yuba-Sutter travel demand model vehicle activity forecasts, with SIP adjustments.

The DTIM analysis shows that hydrocarbon, nitrogen oxide, and carbon monoxide emissions resulting from implementation of the Preferred Option are expected to decrease substantially between 1995 and 2015; this is considered a significant beneficial impact. However, particulate matter emissions are expected to increase during the same time period, primarily because of the significant increase in vehicle miles of travel expected with or without the transportation improvements proposed in the Preferred Option.

RECOMMENDED MITIGATION MEASURES

Specific impacts related to transportation facility construction will be identified in project-specific environmental documentation for projects and programs in the Preferred Option. At that time, specific mitigation measures will be developed to address any significant and adverse impacts.

Sufficient mitigation to reduce the projected level of particulate matter emissions is not available. Therefore, the significant adverse impact identified for the projected increase in particulate matter emissions is unavoidable.

NOISE

INTRODUCTION

For the noise analysis, SACOG retained the acoustical consulting firm of Brown-Buntin Associates, Inc. (BBA) to quantify traffic noise levels in the SACOG area of influence for existing conditions and future MTP alternatives, to identify significant noise impacts associated with the plan alternatives, and to generally discuss the effectiveness of existing and proposed noise barriers in reducing traffic noise levels within the SACOG region. Potential noise impacts associated with the Preferred Option for the MTP are discussed in this section. A complete noise analysis is available at the SACOG library.

ENVIRONMENTAL SETTING

Description of Noise and Terminology

Noise is often described as unwanted sound, and thus is a subjective reaction to characteristics of a physical phenomenon. Researchers have generally agreed that A-weighted sound pressure levels (sound levels) are well correlated with subjective reaction to noise. Variations in sound levels over time are represented by statistical descriptors, and by time-weighted composite noise metrics such as the Day/Night Average Level (L_{dn}). The unit of sound level measurement is the decibel (dB), sometimes expressed as dBA. Throughout this analysis, A-weighted sound pressure levels will be used to describe traffic noise.

Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and hence are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called hertz (Hz) by international agreement.

The speed of sound in air is approximately 770 miles per hour, or 1,130 feet/second. Knowing the speed and frequency of a sound, one may calculate its wavelength; the physical distance in air from one compression of the atmosphere to the next. An understanding of wavelength is useful in evaluating the effectiveness of physical noise control devices such as mufflers and barriers, which depend upon either absorbing or blocking sound waves to reduce sound levels.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold of 20 micropascals as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range.

The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighting the frequency response of a sound level measurement device (called a sound level meter) by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as sound levels in dB) and community response to noise. For this reason, the A-weighted sound pressure level has become the standard tool of environmental noise assessment.

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to

measure the ambient noise level is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptors such as L_{dn} , and shows very good correlation with community response to noise.

Two composite noise descriptors are in common use today: L_{dn} (Day-night Average Level) and CNEL (Community Noise Equivalent Level). The L_{dn} is based upon the average hourly L_{eq} over a 24-hour day, with a +10 decibel weighting applied to nighttime (10:00 p.m. to 7:00 a.m.) L_{eq} values. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. The CNEL, like L_{dn} , is based upon the weighted average hourly L_{eq} over a 24-hour day, except that an additional +4.8 decibel penalty is applied to evening (7:00 p.m. to 10:00 p.m.) hourly L_{eq} values. The CNEL was developed for the California Airport Noise Regulations, and is applied specifically to airport/aircraft noise assessment. For this reason, the L_{dn} descriptor, rather than CNEL, is used for the assessment of traffic noise levels in the SACOG region.

Noise in the community has often been cited as being a health problem, not in terms of actual damage such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities such as sleep, speech, recreation, and tasks demanding concentration or coordination. When community noise interferes with human activities or contributes to stress, public annoyance with the noise source increases, and the acceptability of the environment for people decreases. This decrease in acceptability and the threat to public well-being are the bases for land use planning policies preventing exposure to excessive community noise levels.

To control noise from fixed sources which have developed from processes other than zoning or land use planning, many jurisdictions have adopted community noise control ordinances. Such ordinances are intended to abate noise nuisances and to control noise from existing sources. They may also be used as performance standards to judge the creation of a potential nuisance, or potential encroachment of sensitive uses upon noise-producing facilities. Community noise control ordinances are generally designed to resolve noise problems on a short-term basis (usually by means of hourly noise level criteria), rather than on the basis of 24-hour or annual cumulative noise exposures.

Noise ordinance criteria are not applicable to traffic on public roadways. However, General Plan Noise Elements provide noise standards for new noise-sensitive land uses affected by transportation noise sources. General Plan Noise Elements frequently contain general noise mitigation measures for use in reducing the potential for adverse noise impacts associated with the development of new noise-sensitive or noise-producing land uses.

For new noise-sensitive land uses affected by transportation noise sources, many jurisdictions consider land use compatibility criteria of 60 to 65 dB L_{dn} as being "normally acceptable" for such uses. Typical options for mitigation of excessive traffic noise levels include the use of setbacks or buffer areas between the roadway and the proposed noise-sensitive land use, noise barriers, residential unit design and improvements to building facade construction.

Because many rural residential areas experience very low noise levels, residents may express concern about the loss of "peace and quiet" due to the introduction of a sound which was not audible previously. In very quiet environments, the introduction of virtually any change in local activities will cause an increase in noise levels. A change in noise level and the loss of "peace and quiet" is the inevitable result of land use or activity changes in such areas. Audibility of a new noise source or increases in noise levels within recognized acceptable limits are not usually considered to be significant noise impacts, but these concerns should be addressed and considered in the planning and environmental review processes.

Major Noise Sources in the SACOG Region

Noise sources are commonly grouped into two major categories: transportation and non-transportation noise sources. Transportation noise sources include surface traffic on public roadways, railroad line operations, and aircraft in flight. Non-transportation (or fixed), noise sources, commonly consist of industrial activities, railroad yard activities, small mechanical devices (lawnmowers, leaf blowers, air conditioners, radios, etc.), and other sources not included in the traffic, railroad and aircraft category.

The ambient noise environment in the SACOG region is defined by a wide variety of noise sources. The most pervasive source of noise in the region is traffic noise. With thousands of miles of roadways in the SACOG region it is difficult to escape the sound of traffic. Traffic noise exposure is mainly a function of the number of vehicles on a given roadway per day, the speed of those vehicles, the percentage of medium and heavy trucks in the traffic volume, and the receiver's proximity to the roadway. Every vehicle passage on every roadway in the region radiates noise.

The region is also affected by freight and passenger railroad operations. While these operations generate significant noise levels in the immediate vicinity of the railroad tracks during train passages, these operations are intermittent and the tracks are widely dispersed throughout the region. For these reasons, the contribution of railroad noise to the overall ambient noise environment in the SACOG region is relatively small.

The SACOG region is home to many airports, including public, private and military airports. In addition to the numerous daily aircraft operations which originate and terminate at these airports daily, overflights of the area by aircraft not utilizing the regional airports frequently occur. All of these operations contribute in some degree to the overall ambient noise environment in the SACOG region. The intensity of aircraft noise exposure depends on one's proximity to the aircraft flight path, the type, speed, and altitude of airplane, as well as atmospheric conditions. The farther away the noise source is the more the sound propagation from source to receiver is affected by weather.

There is a wide variety of industrial and other non-transportation noise sources in the SACOG region, including manufacturing operations, power plants, food packaging and processing facilities, lumber mills, aggregate mining and processing plants, race tracks, shooting ranges, amphitheaters, and car washes, to name a few. Noise generated by these sources varies significantly, but can provide a greater contribution to the local ambient noise environment than traffic, depending on the nature of the noise source. Although non-transportation noise sources can define the ambient noise environment within a given distance to the noise source, the regional ambient noise environment is, nonetheless, defined primarily by traffic.

Noise Barriers

Shielding by barriers can be obtained by placing walls, berms or other structures between the traffic noise source and the receiver. The effectiveness of a barrier depends upon blocking line-of-sight between the traffic and receiver, and is improved with increasing the distance the sound must travel to pass over the barrier as compared to a straight line from source to receiver. For a noise barrier to be effective, it must not only be sufficiently tall to intercept line of sight from noise source to receiver, but it must also be sufficiently long to reduce the potential for sound to flank around ends of the barrier.

Barrier effectiveness depends upon the relative heights of the source, barrier and receiver. In general, barriers are most effective when placed close to either the receiver or the traffic noise source. An intermediate barrier location yields a smaller path length difference for a given increase in barrier height than does a location closer to either source or receiver.

For maximum effectiveness, barriers must be continuous and relatively airtight along their length and height. To ensure that sound transmission through the barrier is insignificant, barrier mass should be about 4 lbs./square foot, although a lesser mass may be acceptable if the barrier material provides sufficient transmission loss in the frequency range of concern. Satisfaction of the above criteria requires substantial and well-fitted barrier materials, placed to intercept line of sight to all significant traffic noise sources. Earth, in the form of berms or the face of a depressed area, is also an effective barrier material.

There are practical limits to the noise reduction provided by barriers. For highway traffic noise, a 5 to 10 dB noise reduction may often be reasonably attained. The use of an earth berm in lieu of a solid wall will provide up to 3 dB additional attenuation over that attained by a solid wall alone, due to the absorption provided by the earth. Berm/wall combinations offer slightly better acoustical performance than solid walls, and are often preferred for aesthetic reasons.

Noise barriers currently exist or are planned in many areas of the SACOG region adjacent to the state highways. In cases of new residential development adjacent to a major roadway in the SACOG region, the responsibility for noise mitigation is placed on the project developer. In such cases, noise barriers are commonly constructed just inside the highway right of way. In other cases, local jurisdictions and Caltrans have built barriers as part of roadway improvement projects or barrier retrofit programs.

Traffic Noise Prediction Methodology

To predict traffic noise levels in the SACOG region the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) was employed. The FHWA model is the analytical method currently favored for traffic noise prediction by most state and local agencies, including the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA). The model is based upon the Calven reference noise emission factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions, and is considered to be accurate within 1.5 dB. To predict L_{dn} values, it is necessary to determine the day/night distribution of traffic and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

For the purposes of this analysis, the FHWA model was used to conduct a cumulative noise analysis of the regional highway system. The FHWA model uses output produced from transportation demand models such as the SACMET and Yuba-Sutter models used in the transportation analysis for this report. These models are commonly used for estimating traffic volumes on a region-wide basis, but are not ideal for forecasting traffic volumes on local streets and roads. The model is designed to estimate travel patterns over a wide area, where trip makers have choices about where to go and how to get there. Consequently, corridor-level or project-level noise analyses are not included in this report.

At the project-specific review stage, local agencies will identify potential traffic noise impacts resulting from implementation of specific projects in the Preferred Option once precise project location, size, and design are determined.

Traffic Noise Prediction Model Inputs

Inputs to the FHWA Highway Traffic Noise Prediction model include average daily traffic volume (ADT), the day/night traffic distribution, medium and heavy truck percentages, and vehicle speed. The ADT's for all roadways were provided by SACOG. In addition, the day/night traffic distribution and vehicle speeds were provided by SACOG. Truck-mix assumptions were based on Caltrans traffic

counts.

The average daily traffic volumes provided by SACOG were in the form of directional volumes for each state highway segment. BBA manually combined the traffic volumes for each direction, including high occupancy vehicle (HOV) lanes, to obtain average daily traffic volumes for a roadway segment. In cases where roadway volumes and other traffic parameters did not vary significantly from one segment to the next, segments were combined to simplify the data analysis. Because it was observed that vehicle volumes generally did not vary significantly between the future (year 2015) plan alternatives, BBA compared the changes in roadway speeds and day/night distributions to determine if those parameters could be assumed to be effectively constant between the scenarios. Since there was no significant change in these parameters between the 1996 MTP alternatives, they were held constant throughout this analysis.

To allow subsequent assessment of noise impacts associated with the Preferred Option, the year 2015 Constrained Current Plan Alternative was selected to be basis for comparison of traffic noise levels. Traffic noise levels were predicted at distances of either 75 feet or 150 feet from roadway center lines, depending on the general right of way width of the roadway, to provide an approximate representation of the nearest potentially affected noise-sensitive receivers.

POTENTIAL ENVIRONMENTAL IMPACTS

Criteria for Significance

The Noise Elements of the cities and counties located within the SACOG sphere of influence typically apply land use compatibility criteria of 60-65 dB L_{dn} as being normally acceptable for new residential developments affected by transportation noise sources. The intent of these standards is to provide an acceptable noise environment for outdoor activities. These criteria are consistent with the noise level standards applied by the Federal Department of Housing and Urban Development (HUD).

Although the above-described noise standards are commonly applied to new residential projects affected by transportation noise sources, they nonetheless provide a frame of reference by which the magnitude of existing and future traffic noise levels can be compared. For the purposes of this analysis, the impact is considered significant if the 65 dB L_{dn} contour extends beyond 1,000 feet from the centerline of a highway.

In addition to the local noise standards, noise impacts may be evaluated by comparison of traffic noise generated under the Preferred Option to levels to ambient noise levels under the 2015 Constrained Plan Option. Given expected population and employment growth in the region, it is not reasonable to expect that traffic levels will remain constant. Therefore, potential noise impacts are discussed in the following manner:

- What noise levels can be expected on the metropolitan transportation system in 2015 if only limited transportation improvements are made?
- How might the Preferred Option increase or decrease noise levels on the metropolitan transportation system by 2015?

Table 8 is based upon recommendations made in August 1992 by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been assumed for this analysis that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics, such as the L_{dn} . This metric is generally applied to transportation noise sources, and defines noise exposure

in terms of average noise exposure during a 24-hour period with a penalty added to noise that occurs during the nighttime.

According to Table 8, an increase in the traffic noise level of 1.5 dB or more would be significant where the ambient noise level exceeds 65 dB L_{dn} . Where ambient noise levels fall below 60 dB L_{dn} , an increase of 5.0 dB L_{dn} or more would create a significant adverse impact. Between 60 and 65 dB L_{dn} , an increase of 3.0 dB L_{dn} is considered significant and adverse.

Table 8
Significance of Changes in Cumulative Noise Exposure*

Ambient Noise Level Without Project, L_{dn}	Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: Federal Interagency Committee on Noise (FICON), as applied by Brown-Buntin Associates.

* Expected reactions to changes in ambient noise levels have been reported by Egan and others for noise sources quantified by metrics which define short-term exposure (e.g., hourly L_{eq} , L_{max} and L_n). These metrics are usually used to describe noise impacts due to industrial operations, machinery and other sources that are not associated with transportation. According to Egan and others, an increase of at least 3 dB is usually required before most people will perceive a change in noise levels, and an increase of 5 dB is required before the change will be clearly noticeable. A common practice is to assume that a minimally perceptible increase of 3 dB represents a significant increase in ambient noise levels.

Traffic Noise Prediction Modeling Results

The FHWA traffic noise prediction model was used with the input data to predict existing and future traffic noise levels for the state highways located within the SACOG region. The results of this analysis are shown in the complete noise analysis report available from SACOG. The results show the predicted traffic noise levels in terms of L_{dn} for the year 2015 Constrained Current Plan Condition, and offsets to the 2015 Constrained Current Plan levels to describe existing conditions and Preferred Option noise levels. The report also shows the distances to the 65 dB L_{dn} traffic noise contours for each roadway segment and scenario. It should be noted, however, that the noise contour data do not account for local shielding by topography or noise barriers and should, therefore, be considered conservative estimates of traffic noise exposure in the project study area.

Potential Noise Impacts

Table 9 on the following page shows the number of roadway segments in which traffic noise levels are predicted to increase and decrease relative to the Year 2015 Constrained Current Plan alternative.

Table 9
Comparison of the Preferred Option
To the Year 2015 Constrained Current Plan

Factor	Constrained Plan	Preferred Option
Number of Segments with Decreased Noise Levels:	87	82
Number of Segments with Significant Decreases:	8	3
Number of Roadways with No Change in Noise Levels:	69	45
Number of Segments with Increased Noise Levels:	41	69
Number of Segments with Significant Increases:	2	6

Sacramento County:

- I-5 between Fruitridge Road and Sutterville Road: 65dB noise contour extends beyond 1,000 feet from the centerline
- Route 16 between Folsom Boulevard and Florin-Perkins Road: Significant increase in ambient noise levels

Sutter County:

- Route 99 between Tudor and O'Bannon: Significant decrease in ambient noise levels
- Route 99 between Oswald and Bogue: Significant decrease in ambient noise levels
- Route 99 between Eager Road and Live Oak: Significant decrease in ambient noise levels

Yolo County:

- I-5 between Main Street and Route 113 South: Significant increase in ambient noise levels
- I-5 between Route 113 South and Route 113 North: Significant increase in ambient noise levels
- Route 84 between Linden Road and South River Road: Significant increase in ambient noise levels
- Route 84 between South River Road and 15th Street: Significant increase in ambient noise levels
- Route 113 between Main Street and I-5: Significant increase in ambient noise levels.

At locations where soundwalls have already been constructed, and at locations planned for noise barrier construction, reductions in traffic noise of approximately 6 to 10 dB L_{dn} are expected provided that the noise barriers intercept line of sight from the autos, medium trucks and heavy trucks to the noise sensitive receiver locations. In many cases, noise reductions in this range would reduce future traffic noise levels to 65 dB L_{dn} or less at the nearest noise sensitive areas. Where traffic noise levels are between 60 and 65 dB L_{dn} , a 3 dB traffic noise level increase or decrease is normally required before a significant impact is identified.

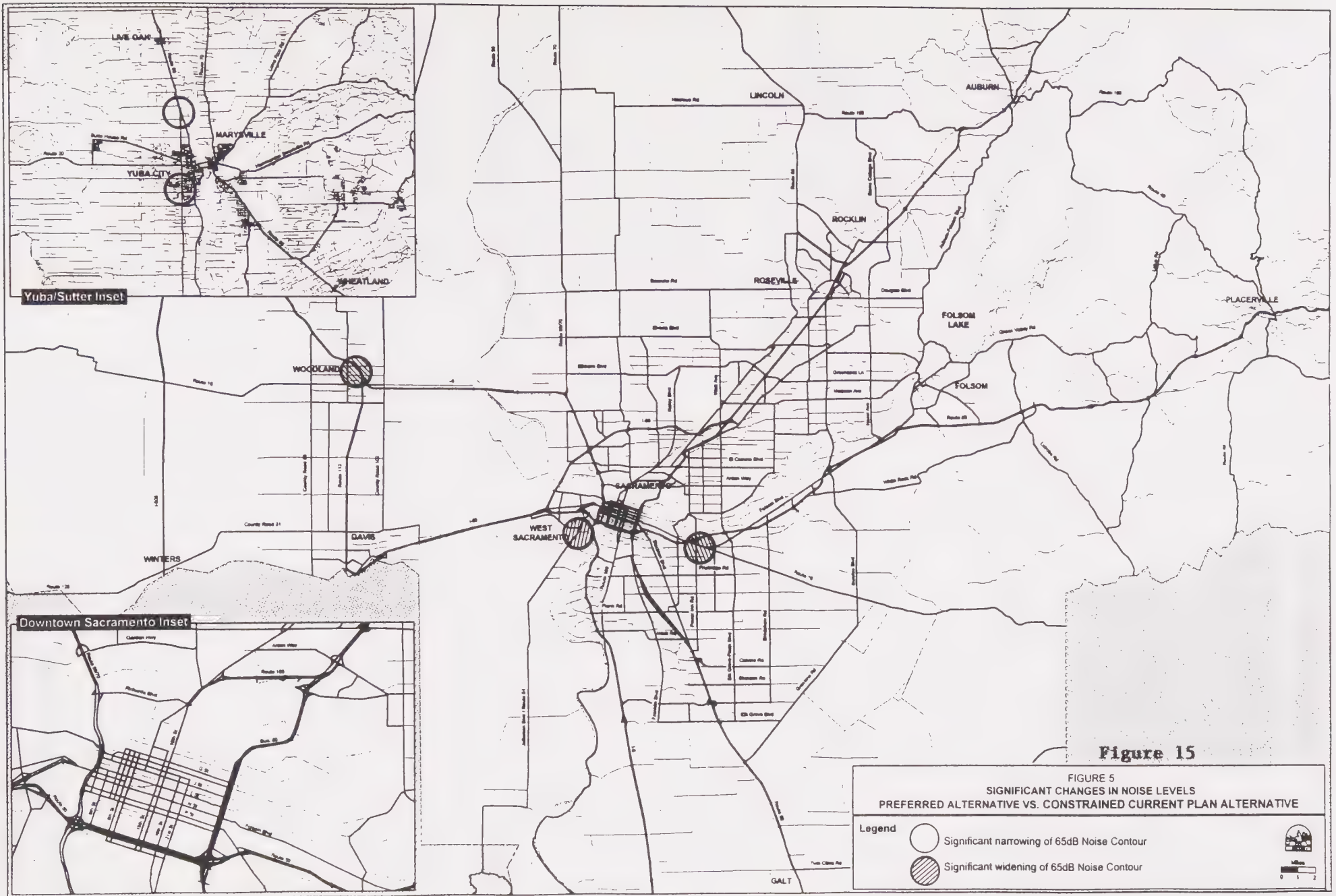


Figure 15

FIGURE 5
SIGNIFICANT CHANGES IN NOISE LEVELS
PREFERRED ALTERNATIVE VS. CONSTRAINED CURRENT PLAN ALTERNATIVE

- Legend**
- Significant narrowing of 65dB Noise Contour
 - ◐ Significant widening of 65dB Noise Contour



Because all of the significant adverse noise impacts associated with the project alternatives involve traffic noise level increases of 3 dB or less, the presence of existing barriers or the construction of new noise barriers along the impacted segments would likely reduce the noise impacts at those locations to a less-than-significant level.

Of the six locations at which potentially significant and adverse noise impacts may exist under the Preferred Option, none of them have adjacent soundwalls, nor are soundwalls planned for these locations. Therefore, significant adverse impacts would remain.

At the Sacramento County/I-5 segment between Fruitridge and Sutterville, a soundwall exists to attenuate noise levels from the adjacent freeway. Further, at this location, projected traffic noise under the Preferred Option is actually expected to be less than projected traffic noise levels under the 2015 Constrained Plan Option. This combined with the existing soundwall reduces the potential noise impact to a less than significant level.

Recommended Mitigation

- Local agencies and Caltrans should include noise barriers (soundwalls, berms, etc) where necessary in the design of projects on I-5, Route 84, and Route 113 in Yolo County to mitigate potentially adverse traffic noise impacts.

Significant Unavoidable Impacts

Because there are no improvements proposed on Route 16 that could help to attenuate significant noise impacts, the potential impact is considered unavoidable.

WATER RESOURCES

INTRODUCTION

This analysis addresses issues related to surface-water resources, flooding, ground-water resources, and storm water runoff. Please refer the Utilities and Services section for further discussion of water supply and conservation.

ENVIRONMENTAL SETTING

Surface Water Resource Quality and Supply

The Sacramento metropolitan area is located in the Central Valley Region 5 of the state's Regional Water Quality Control system and is marked by an abundance of surface water features. Figure 16 shows surface water features throughout the metropolitan area. As the map shows, there are numerous surface water sources in the area, including Folsom Lake and the Sacramento, Feather, American, Cosumnes, Bear, and Yuba Rivers. In addition, there are numerous creeks and canals, including the Deep Water Ship Channel in Yolo County.

Vernal pools represent a less regional, yet important surface water feature. These pools collect seasonal rains that typically provide habitat for plants and animals, often rare or endangered species. These water bodies are small and usually underlain by semi-impermeable soils which restrict percolation into the water table below, resulting in pools that often last from winter to summer. Wetlands protection in general is a challenge nationally and especially in California, which has lost a greater proportion of its original wetlands than has any other state¹. The regulation of wetlands falls mainly with the U.S. Army Corps of Engineers, through the authority of Section 404 of the Clean Water Act. Figure 17 is a list of various agencies that regulate activities in wetlands. Wetlands as a biological resource habitat are discussed further in the Biological Resources section of this report.

Navigable Surface Waters

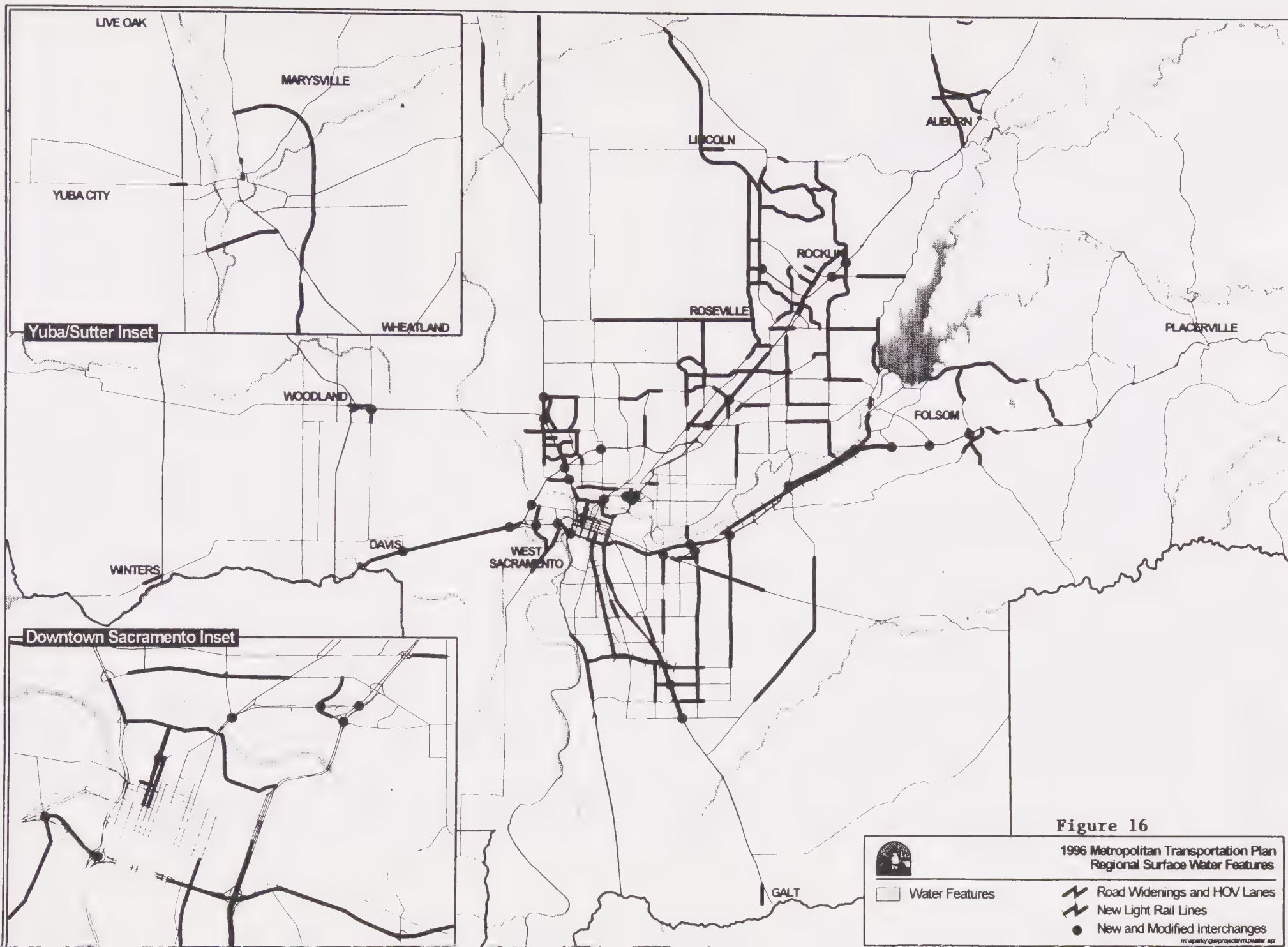
In the Sacramento metropolitan area, several rivers are navigable for recreation purposes, including the Sacramento and American Rivers. However, the only waterway navigable by commercial vessels is the 20-mile long Deep Water Ship Channel. This man-made watercourse extends from the Sacramento-San Joaquin Delta to the Port of Sacramento.

Flooding

The Sacramento metropolitan area has historically been vulnerable to flooding, due to the network of rivers that run through the valley and the adjacent low-lying terrain. Much of the Sacramento basin lies within the natural floodplain of the Sacramento and American Rivers. Many low-lying areas near these rivers are located in the 100-year floodplain. The principal impact of flooding includes damage to permanent structures, relocation of non-stationary objects, loss of human life and damage to infrastructure and soil conditions. After the initial damage from flood waters, standing water often creates a secondary level of destruction, ruining crops, further undermining and damaging infrastructure, and contaminating water wells.

Two key elements of the regional flood control system are the Yolo and Sutter Bypasses, which function as flood basins and divert flood waters away from populated areas during the winter storm season. Both bypasses are filled by the Sacramento River and by Putah Creek and Cache Creek in

¹ Dahl, T.E. in *Wetlands Regulation: A Complete Guide to Federal and California Programs*, 1995.



Yolo County.

In urbanized areas, flooding occasionally occurs on streets and roads where storm waters are diverted into man-made or artificial drainage systems. The ability of the storm drainage system to accommodate water flows is largely based on ground permeability and infrastructure capacity. In urbanized areas with significant surface areas covered with impervious surfaces, storm water is not able to permeate and percolate into the soil and is therefore diverted into a storm drainage system. In some areas, these drainage systems are occasionally overloaded with storm water drainage, or the drains become clogged with leaves or other debris and impede storm water drainage from transportation facilities. In the metropolitan area, local cities and counties are the responsible agencies for maintaining and upgrading drainage facilities to accommodate volume.

Groundwater Resource Quality and Supply

Groundwater reservoirs are a significant water resource due to their capacity to store usable water, perennially secure from loss or evaporation. Most groundwater reservoirs store far more water than the volume that flows through them annually. However, only the flow-through volume is renewable. A groundwater resource can contain several water-bearing zones, or aquifers. An aquifer refers to a rock formation that is water-bearing.

Groundwater reservoirs are recharged by infiltration of rainfall, seepage from streams, canals, and ditches, and by underflow which enters the valley from tributary stream canyons. Significant areas of groundwater recharge are located along the stream channels of the rivers, where porous soils and gravels contribute extensive amounts of aquifer recharge. Other areas away from river flood plains are characterized by semi-consolidated gravels with low recharge capability or, more often, clay or hardpan soils which allow minimal amounts of groundwater recharge.

Figure 17
Agencies that Regulate Activities in Wetlands

<i>U.S. Army Corps of Engineers</i>	<i>Regulates placement of dredged or fill material in waters of the United States</i>
	<i>Regulates work in navigable waters of the United States</i>
<i>U.S. Environmental Protection Agency</i>	<i>Enforcement of regulations, may veto Corps permit</i>
<i>U.S. Fish and Wildlife Service</i>	<i>Reviews/comments on federal actions that affect wetlands and other waters, including 404 permit applications</i>
<i>National Marine Fisheries Service</i>	<i>Reviews/comments on federal actions that affect coastal waters, including Section 404 permit applications</i>
<i>California Department of Fish and Game</i>	<i>Regulates activities resulting in alteration of streams or lakes</i>
<i>Regional Water Quality Control Boards</i>	<i>Issues water quality certifications; certifications required for Section 404 permits</i>
	<i>Regulates discharge of waste into waters of the United States</i>
<i>State Lands Commission</i>	<i>May preclude the use of submerged lands and tidelands if this use is inconsistent with the public trust</i>

From Wetlands Regulation: A Complete Guide to Federal and California Programs, 1995.

Storm Water Runoff

Storm water runoff in the urbanized portions of the Sacramento metropolitan area is diverted into storm drain systems that funnel these effluents to the network of surface waters. In non-urban areas, drainage of surface waters is augmented by natural drainage patterns. The quality of storm water runoff affects the quality of the surface water into which the runoff eventually flows. When storm water passes over transportation facilities, it carries untreated pollutants such as suspended solids, pathogens, oil, grease, air pollutants, pesticides, fertilizers, and animal wastes. In 1987, the federal government addressed this problem in amending the Clean Water Act by creating the National Pollutant Discharge Elimination System (NPDES). This program enables state water quality agencies to issue permits to cities and counties to develop, implement, and enforce runoff management programs. Therefore, respective cities and counties are responsible for regulating the harmful constituents of storm water runoff by regulating non-point source pollutants, and for developing methods for containing and treating storm water runoff.

Groundwater naturally contains a level of pollutants, which occurs when water contacts with rocks and soils and carries away dissolved solids. However, human activities further impact water quality by affecting the quantity and quality of water that eventually percolates back into the soil and recharges groundwater sources. High dissolved solids concentrations create objectionable odors, taste, and staining. In the Sacramento metropolitan area, the quality of groundwater is affected by three main factors: agricultural pollution, industrial pollution, and urban pollution in the form of storm water runoff. As with surface water contamination, storm water that washes over transportation facilities carry urban pollutants. When this untreated effluent percolates into the soil, some contaminants are filtered out before reaching the groundwater aquifer. Reductions in permeable surfaces limits percolation and associated filtration that treats these contaminants.

POTENTIAL ENVIRONMENTAL IMPACTS AND RECOMMENDED MITIGATIONS

Due to the programmatic nature of this EIR, the cumulative potential for adverse effects on water resources is assessed. The impact analysis identifies the potential impact of the Preferred Option on various water resources, but leaves the determination of the extent of the impact and the sensitivity of the resources that could be affected to later, project-specific environmental documentation. It is at this later stage of environmental review that precise project scopes, alignments, and configurations will be defined.

Criteria for Significance

Appendix G of the CEQA Guidelines indicates that a project will normally have a significant effect on the environment if it will

- Substantially degrade water quality
- Substantially degrade or deplete ground water resources
- Interfere substantially with ground water recharge
- Cause substantial flooding, erosion or siltation

Transportation projects and programs included in the Preferred Option that are located near surface water features could create a potential environmental impact.

Potential Effects of Projects and Programs in the Preferred Option

New or expanded transportation facilities could affect both surface and ground water supplies. Surface water quality could be adversely affected by construction and expansion of roadway and transit facilities. Storm water runoff that passes over these facilities can pick up pollutants and chemicals associated with urban and human activities. The affected runoff eventually reaches major surface water features such as rivers, streams, and lakes through natural drainage features or by man-made storm drainage facilities. Contamination of water resources from urban runoff, however, is expected to be very sporadic, mostly concentrated on a relatively few days during and after precipitation. Thus, short-event rainfall may have disproportionate impacts on water quality. A 1991 study conducted in Los Angeles indicated that bacterial standards for recreational water contact with polluted storm drains were violated more frequently in wet weather than in dry weather.²

New or expanded roadways could affect groundwater supplies by increasing areas impervious to surface runoff and hampering natural percolation into the soil. As a result, normal recharging of underground aquifers is reduced, particularly impacting areas near stream channels where porous soils contribute extensively to groundwater recharge. Figure 18 shows transportation projects included in the Preferred Option and their proximity to various surface water features.

Short-term construction impacts center around grading activities which could facilitate erosion, significantly increasing storm runoff sediments and polluting surface waters. EPA estimates that sediment runoff from construction sites without erosion control measures is typically 10-20 times that of agricultural lands³. These sediments clog storm drain facilities and damage aquatic habitats. Flooding impacts may increase with elimination or modification of existing drainage courses and resultant runoff.

In many cases where projects and programs in the Preferred Option could affect vernal pools and other wetlands, these wetlands are not specifically identified at this time. Rather, some projects in the Preferred Option could be located in close proximity to wetlands that occur only seasonally. In the project-specific environmental documentation for individual projects and programs in the Preferred Option, the lead agencies should determine the extent of the impact and the sensitivity of the water resources that could be affected based on field surveys. It is at this later stage of environmental review that precise project scopes, alignments, and configurations will be defined.

Impact: Substantial degradation of water quality.

Projects and programs in the Preferred Option have the potential to degrade water quality due to storm water runoff from these facilities. Depending on the type of facility and its location and size, the potential impact on water quality could be significant. Under the requirements of the National Pollutant Discharge Elimination System (NPDES), however, local agencies must develop mechanisms to control and monitor discharge of urban runoff, and to meet management criteria and water quality standards developed by the U.S. Environmental Protection Agency and the California Regional Water Quality Control Board.

Recommended Mitigation:

1. Local agencies responsible for implementation of NPDES permits should develop methods to capture and treat storm water runoff from transportation facilities included in the Preferred Option.

² Gold, *Beach Pollution Report*, 1991.

³ Sacramento County General Plan Conservation Element, December 1993.

Impact: Substantial degradation or depletion of ground water resources.

Construction of transportation facility improvements included in the Preferred Option is not expected to result in withdrawals of ground water. More likely, water will be transported to construction sites for the purpose of mixing construction materials and wetting down dirt-covered surfaces. Therefore, construction of projects and programs in the Preferred Option is not expected to reduce or deplete ground water resources.

Recommended Mitigation: None required.

Impact: Substantial interference with ground water recharge.

As shown in Figure 18 , several transportation facility improvements proposed in the Preferred Option are proposed in close proximity to areas with good ground water recharge capability. Consequently, these transportation facility improvements have the potential to adversely affect ground water recharge in those areas. New and improved transportation facilities can increase the amount of impervious surfaces in areas with good ground water recharge capability, thereby decreasing the amount of annual recharge of the underlying aquifer.

Recommended Mitigation: None available to offset potential effects of transportation facility construction on ground water recharge capability. Potential impacts are likely to be unavoidable.

Impact: Substantial flooding, erosion, or siltation.

Construction of transportation facilities included in the Preferred Option will create more impervious surfaces and will direct storm water into artificial drainage facilities. Where these drainage facilities lack the capacity to handle excessive storm water, or where these facilities are clogged, localized flooding could result.

In addition, grading associated with the construction of transportation facilities included in the Preferred Option could result in increased erosion, which in turn could result in increased sediment loads in storm water runoff. As with potential degradation of water quality due to storm water runoff, potential impacts from erosion from construction sites could be addressed through implementation of local NPDES permit requirements.

Recommended Mitigation:

2. During transportation facility construction, local agencies and Caltrans should construct and maintain drainage facilities with enough capacity to allow full drainage of storm water.
3. Local agencies responsible for implementation of NPDES permits should develop methods to capture and treat storm water runoff from transportation facilities included in the Preferred Option.

BIOLOGICAL RESOURCES

INTRODUCTION

This section of the EIR assesses biological resources within the Sacramento metropolitan area that might be affected by the Preferred Option. Rare, threatened, and endangered species and areas of ecological significance are both examined. This assessment is based primarily on the general plans of local jurisdictions, which in turn are based in large part on information from the California Department of Fish and Game Natural Diversity Data Base.

The information presented in this report is regional in scope. Data provided in this section should be considered preliminary and appropriate for general policy planning. Site-specific biological resource assessments will be necessary to determine project-level environmental effects and appropriate mitigation.

ENVIRONMENTAL SETTING

Several ecological communities are located in the Sacramento metropolitan area, including grasslands, mixed oak woodlands, mixed coniferous forests, riparian areas, wetlands, and other aquatic habitats. Marshes along rivers and streams support unique biological resources. In addition, the region provides an important nesting place, wintering ground, and feeding area for birds migrating between Canada and Mexico.

Terrestrial Biota and Habitats

The major types of plant communities in the Sacramento metropolitan area include urban, agriculture, greenbelts, oak savannahs, woodlands, mixed coniferous forests, grasslands, riparian areas, and wetlands.

Urban, Agriculture, and Greenbelts: Parts of the Sacramento metropolitan area are urbanized, as well as used for cattle grazing and farming. In fact, some of California's most productive farming activities are in the Central Valley. Urban and agricultural plant communities include cultivated crop and landscaping plant species used in urban development. Agricultural crops are usually monotypic and frequently require irrigation and fertilizers.

Urban landscaping, urban parks, and agricultural vegetation provide habitat to small mammals and birds. Tree rows on the edges of developed areas that serve as "wind breaks" also provide cover, nesting sites, and food sources for wildlife, especially birds. Habitat value is low, however, and is not comparable to native plant communities. Various animals have become adapted to human land uses, although wildlife use of agricultural areas is often considered a nuisance.

Some of the richest agricultural land in the country is found in the Sacramento Valley, with its alluvial soils that support a number of agricultural crops. Major crops in the Sacramento metropolitan area include rice, corn, tomatoes, fruit and nut orchards (including peaches, kiwi, and almonds, among others), and grain fields.

Mixed Coniferous Forests: Some mixed coniferous forests are found within the Sacramento metropolitan area in the more-shaded portions of the mountains. These areas include western Placer and El Dorado Counties, western Yolo County, and the far northeastern portion of Yuba County. These dense to moderately open forests are composed of tall needleleaf evergreen trees, including white fir, Jeffrey pine and sugar pine, with some shrubs and broad leaf trees. In Yuba County, the coniferous forest is mainly a mixed stand of ponderosa pine, Douglas fir, white fir, sugar pine, and incense cedar, but includes some oaks, madrone, and other hardwoods.

Oak Savannah and Oak Woodlands: The oak savannah is comprised of open grasslands with scattered blue oak trees and digger pines. The oak woodland community is comprised of 30 percent or more tree cover and include interior live oak, valley oak, and other medium tall or low broad leaf evergreens. The understory has herbaceous and shrub species. Oak savannahs and oak woodlands are important for their wildlife habitat value, soils development, and watershed protection.

The oak savannah and oak woodland also provide cover and food sources for many animal species. Acorns provide an important food source, and the dense canopy provide valuable nesting areas and cover. In the oak woodland, the dead limbs of older trees often are used as nesting or den sites for birds. Because of its habitat value for animals and scenic value for humans, many local jurisdictions have enacted ordinances to protect oak woodlands.

Chaparral: Chaparral communities contain dense vegetation, primarily woody shrub plants such as chamise, California lilac, and manzanita. This plant community is drought tolerant and fire hazardous, and provides cover, nesting, and food for a variety of wildlife. These communities may be located near oak woodlands and savannahs or near grasslands. Some of the chaparral areas in the region are located in eastern and northwestern Sutter and Placer Counties, western El Dorado County, southeast Sacramento County, northern Yolo County, and the central core of Yuba County.

Grasslands: Grasslands in the region are primarily non-native annual Mediterranean grasses. This plant community occurs over much of the landscape that is not urbanized or used for cattle grazing or farming. Annual grassland supports an array of native and introduced spring herbs as well. Common species may include wild oats, brome grass, fescue, and native wildflowers.

Grassland habitats also support a wide variety of small birds and mammals and a variety of predators. Many species that use riparian areas also use the grassland for part of their habitat needs as well.

Riparian Areas: Riparian vegetation is located along the banks of rivers, streams, creeks, and swales (slight depressions, sometimes swampy, in the midst of generally level land). Riparian plants are water-dependent and control bank erosion. Vegetation in these areas include live oak, valley oak, coastal live oak, box elder, poplars, willows, alders, and Oregon ash. Shrubs include elderberry bottom bush, coyote bush, Native California grape and poison oak. Non-wooded riparian plants include lady ferns, tule, cattails, sedges, bulrushes, blackberries, and strawberries.

Riparian corridors provide valuable wildlife habitat because of the water source, cover, migration corridors, and abundant food source. The presence of water attracts not only species using it for drinking, but also species dependent upon a water habitat.

Aquatic Biota and Habitats

Wetlands: Wetland habitats in the Sacramento metropolitan area occur along the margins of the rivers, creeks, sloughs, and channels, as well as in other seasonally and perennially wet areas such as vernal pools and ponds. Biologically productive wetlands are one of the most threatened wildlife habitats because they occur in the more easily developable and intensely used geographic areas. Wetland habitats and their biological productivity have been significantly reduced as a result of development, dredging, sedimentation, and pollution.

Wetlands are considered “waters of the United States” and as such are regulated by the Clean Water Act. Under federal regulations, wetlands are identified as follows:

“The term wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a

prevalence of vegetation typically adapted for life in saturated soil conditions. Wetland generally include swamps, marshes, bogs, and similar areas" (33 CFR 328.3[b]; 40 CFR 230.3[t])¹.

In addition to providing valuable habitat for a number of plant and animal species, wetlands perform valuable functions for humans as well. Wetlands provide flood protection in some areas by providing drainage areas for excess storm waters, and they allow for ground water recharge. Where storm water runoff contains contaminants such as oils, grease, and other toxics, wetland areas provide a means of filtering these contaminants. Wetlands also provide recreational and aesthetic value to people and scientific value to researchers who seek additional information on the effects of wetlands on both human and wildlife populations.

Wetlands are typically characterized by the following conditions:

- Periodically saturated or covered with water
- Typically undrained and hydric soils
- Hydrophytes ("water loving" plants).

In the Sacramento metropolitan area, several types of wetlands provide habitat for a number of plant and animal species. These wetlands include overflow areas adjacent to the region's rivers, lakes, streams, and creeks, vernal pools, and freshwater marshes.

Plant and Animal Species of Special Concern

A compilation of special-status wildlife species is available from SACOG, taking information contained in the environmental documentation for the following general plans:

- Placer County General Plan (September 1992)
- El Dorado County General Plan (January 1994)
- Sacramento County General Plan (December 1993)
- Sutter County General Plan (May 1994)
- Yuba County General Plan (May 1994).

Information on special-status plants and animals potentially found in Yolo County was obtained from the general plans of various cities and community areas in Yolo County, as the County's General Plan was last updated in 1983.

The information included in these general plan documents has itself been taken from several sources, including the following:

- California Department of Fish and Game, Natural Diversity Data Base
- California Native Plant Society
- Existing environmental documents

The list is neither exhaustive or complete. The Natural Diversity Data Base is constantly being updated and expanded, and at any point in time may not reflect species which have been sighted but not yet entered into the database. The Natural Diversity Data Base does not replace the need for conducting field work at the time that project-specific environmental documentation is prepared for projects and programs in the Preferred Option for the 1996 MTP.

¹Cylinder, et al, Wetlands Regulation: A Complete Guide to Federal and California Programs, 1995.

Areas of Ecological Significance

The Significant Natural Areas Program is administered by the Department of Fish and Game and is designed to encourage recognition of the state's most significant natural areas. Significant natural areas (SNAs) have no legal status, but they have been identified in response to a legislative mandate (AB 1039) to raise the level of awareness about California's natural diversity and to identify opportunities for which cooperative efforts can conserve important biological resources.

DFG has used only the Natural Diversity Data Base to identify SNAs in each county. The exact boundaries of SNAs have not been established because thorough field studies have not been completed. SNAs have been identified on the basis of ecological value along; geological or cultural resource values have not been included in the inventory. To qualify as an SNA, a site must meet one of the following four criteria:

- The species or community (element) is extremely rare
- The site has a collection of three or more rare elements
- The element is the best example (relatively undisturbed condition), or
- The element is a center of high diversity.

In addition to SNAs, many local agencies have identified additional areas of ecological significance through the development of their general plans.

POTENTIAL ENVIRONMENTAL IMPACTS

Criteria for Significance

Appendix G of the CEQA Guidelines indicates that a project will normally have a significant effect on the environment if it will

- Substantially affect a rare or endangered species of animal or plant or the habitat of the species
- Interfere with the movement of any resident or migratory fish or wildlife species
- Substantially diminish habitat for fish, wildlife, or plants

Potential Biological Resource Impacts

Potential impacts on biological resources are generally described in this section. More detailed evaluations will need to be conducted on a project-by-project basis to determine the exact resources found within transportation project sites.

Implementation of various projects and programs in the Preferred Option may affect biological resources. Potential impacts may occur from the construction of transportation facilities and their operation and existence. Construction can result in the removal of physical habitats because of cut, fill, and other grading activities. There could be direct losses of vegetation, destruction of less-mobile wildlife, and erosion and siltation hazards. Loss of nutrients from soil- and water-runoff, potentially resulting in adverse impacts on plant and animal communities, are also indirectly related to construction activities.

Transportation facility construction and operation can encroach upon remaining wetlands and aquatic

environments not only from construction activities, but from shading and alteration of climate in and around natural resource areas, and the creation of additional noise and vibration. These changes to the natural environment can reduce habitat value for existing wildlife. Encroachment in these areas can cause reduction in food supply, shelter, and nesting/breeding habitats to a wide variety of animals and plants. In turn, the abundance and diversity of the animal species could be adversely affected by such disturbances. In addition, increased siltation and sedimentation of water resources may further degrade the freshwater environments. If prey populations decrease, predator populations would also decline or be displaced to undeveloped areas. Wildlife that is dependent upon riparian areas would be particularly sensitive to habitat degradation, because there are few alternative locations with similar habitat characteristics.

In summary, significant adverse impacts to biological resources resulting from implementation of the Preferred Option include the following:

- Potential degradation of sensitive habitats - by reduction of vegetation types, conversion of natural vegetation to urbanized uses and non-native species, and reduction of wildlife habitat and native wildlife species
- Potential impacts to endangered and threatened species - either by direct impact onto the species itself or encroachment into areas of ecological significance by such species. This includes the possible interference with the movement of resident or migratory fish and wildlife species.
- Potential adverse exposures to biota and habitats from siltation, erosion, and releases/resuspensions of contaminated sediments.

The purpose of this programmatic EIR is to identify the potential impacts that might occur with the implementation of the Preferred Option for the 1996 MTP. This particular section is intended to act as a resource to local jurisdictions as they prepare project-specific environmental documentation prior to construction of proposed projects in the Preferred Option. Such documents should focus on the specific impacts that may result from implementation of transportation projects and programs once precise project location and size is determined, and develop specific programs to mitigate adverse impacts to biological resources.

Recommended Mitigation

Carry out all necessary surveys prior to completion of the permit process for specific projects to determine the actual project-specific biological resource impacts, and develop appropriate mitigation measures for approval by applicable state and federal agencies.

CULTURAL AND HISTORIC RESOURCES

INTRODUCTION

A rich and varied collection of cultural resources illustrates the diverse origins and growth of the Sacramento metropolitan area. These resources fall into five broad categories: building, site, structure, object, and district. Identifying important cultural resources involves surveys in the areas of archeology, paleontology, prehistory, ethnography (branch of archeology involving the classification and description of primitive human cultures), history, and government landmarks.

ENVIRONMENTAL SETTING

Prehistory

Due to a combination of moderate climate and abundant natural resources, the Sacramento metropolitan area has been occupied by humans for several thousand years. Evidence suggests that Native Americans in the Central Valley were living along the river banks as early as 4,000 to 5,000 years ago. The Windmill mound (SAC-107) near the Cosumnes River in Sacramento County is dated by radiocarbon technique to be 3,500 years old. The "Capay Man" was recovered from a stream bank near Capay in Yolo County. While the remains did not have associated cultural materials and have not been dated, indirect evidence indicates that the Capay Man may have been buried between 2,000 to 4,000 years ago¹. Since the remains of the Capay Man were buried over six feet within fairly consolidated calcareous alluvium, other prehistoric artifacts in the metropolitan area may be buried under natural sediments of substantial depth.

Ethnography

Three aboriginal populations lived in the area (see Figure 19). They were the Nisenan (also referred to as the Southern Maidu), Eastern Miwok, and Patwin. Native Americans grew in numbers sporadically between 5,000 years ago and before the arrival of the Spanish in the late 18th century. By the beginning of the first millennium A.D., the Indians were living in the more favorable environmental niches of the area, thanks to the discovery of acorns that could be used as a food staple throughout the year.

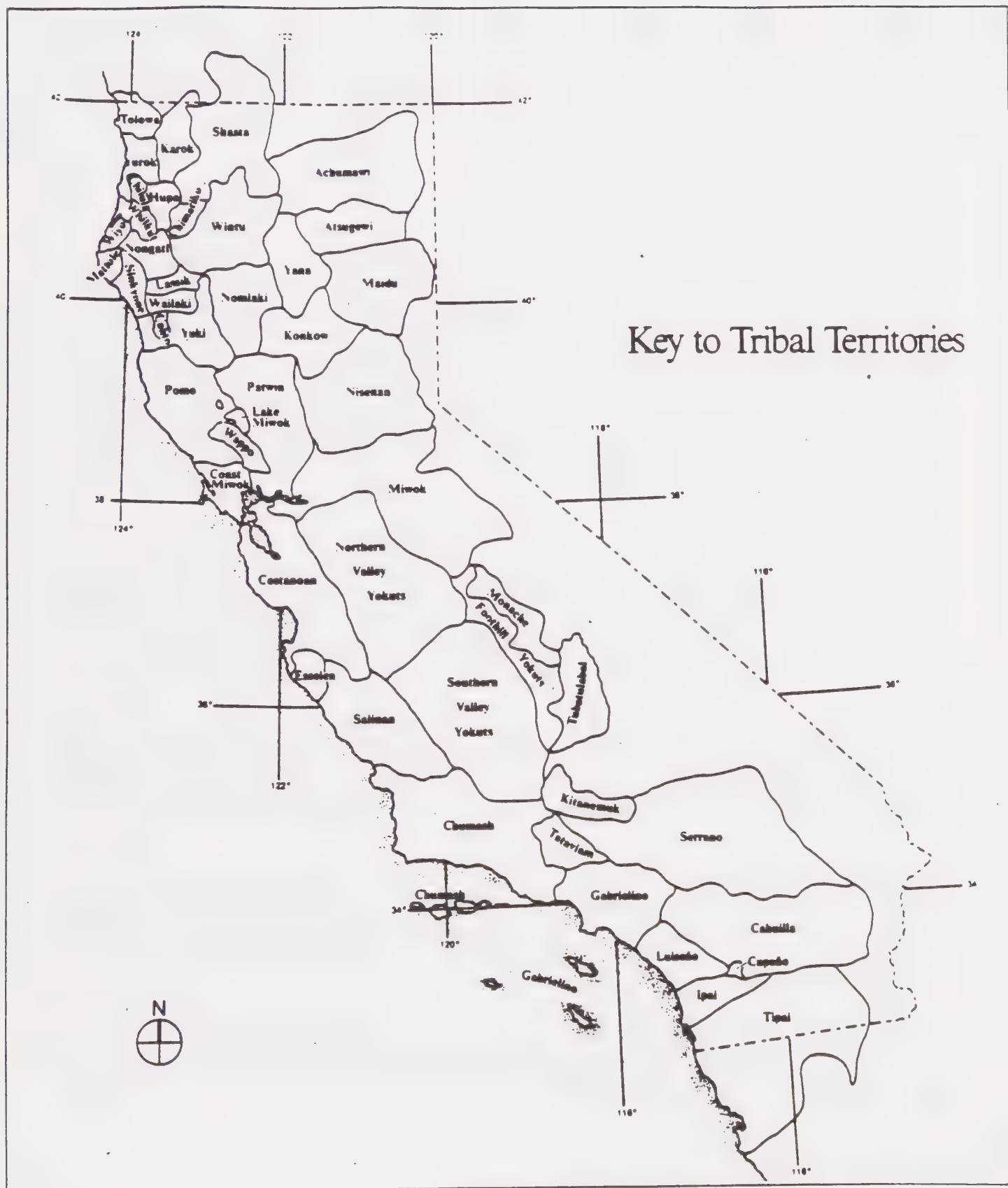
The Nisenan/Southern Maidu territory was the drainage of the Yuba, Bear, and American Rivers and the lower drainage of the Feather River. Three different groups of the Nisenan were the Northern Hill Nisenan, Southern Hill Nisenan, and the Valley Nisenan. Several archeological sites of significance have been found in the City of Roseville (along Strap Ravine) and along the river terraces in Sacramento County.

Of the five different groups which comprised the Eastern Miwok, the Plains Miwok lived in this area. This culture inhabited the lower reaches of the Mokelumne and Cosumnes Rivers and both banks of the Sacramento River from Rio Vista to Freeport. Most of the known settlements of the Plains Miwok were located on natural levees and knolls along major rivers. Many archeological sites of this group have been discovered in Sacramento County.

The Patwins were composed of different cultural groups and once occupied the southern portion of the Sacramento River Valley to the west of the river. The River Patwins were located along a strip on both sides of the Sacramento River, several miles below Stony Creek south to just above the mouth of the Feather River.

¹ Moratto, Michael J. California Archeology. Academic Press. 1984.

Figure 19



After 1770, Indian populations declined and settlement patterns were disrupted within the Central Valley from Spanish colonial expeditions and mission recruitment. However, epidemics of malaria in the early to mid 1800's and early American settlements after 1848 contributed significantly towards the rapid decline in Native American populations.

Early American Settlements

The pace of physical change to the landscape and the construction of adobes and other structures widened as the missions were disbanded in the 1830s and Mexican settlers took title to the land. Agriculture, grazing, and mining activities led the establishment of permanent settlements and urban centers. The natural environment began to change rapidly as cattle and other domesticated animals grazed the land, as woodlands were cut for fuel and lumber, and as native vegetation gave way to imported grasses and plants, spread by the settlers and their livestock.

Gold Rush

Gold was first discovered north of the American River and on the Yuba River in the vicinity of Marysville by Jonas Spect in April 1848. Hydraulic mining of gold introduced huge quantities of rock, sand, and mud into and adjacent to the mountain waterways. Some of the tailings associated with gold mining - particularly in and around the City of Folsom - have contributed towards the City's historic significance.

Subregional Setting

The following is a brief overview of the history of the counties in the Sacramento metropolitan area.

Sacramento County: The County of Sacramento was one of the original 27 counties in California. The word Sacramento came from the river which was discovered by the first Spanish explorers. The county experienced its share of settlers who came to trap, mine, and farm in the mid 1800s. The area's wealth in fur, gold, and soil drew settlers from diverse backgrounds. The City of Sacramento was first settled in 1839 and incorporated in 1849. With the discovery of gold, the city became home to many of the prospectors and other settlers.

Sutter County: The County of Sutter was named in honor of General John A. Sutter. Yuba City - the county seat - was founded in 1849 as a gold rush development which later became a marketing center for the surrounding agricultural area.

Yolo County: By the mid 1800s, much of the Yolo region had been deeded into large Spanish land grants, though some sites were available for homesteading. Many settled and cleared the land to farm. The big dry cattle ranches of the late 1840s were soon replaced by smaller farms with irrigation. Railroads helped push development and new towns began. A few areas along the Sacramento River became steamboat landings and ferry service centers, where agricultural products could be shipped easily. Yolo County was established in 1850 and the City of Woodland became the county seat in 1862. The word Yolo (or Yo-doy) was the name of an Indian tribe and is said to mean "a place abounding with rushes."

Jerome C. Davis homesteaded the north side of Putah Creek in 1868 and called his town Davisville. Davisville had the first railroad station in Yolo County. The station was important in the shipment of grain. Remains of an Indian village are covered by part of the old town site, now known as the City of Davis.

Yuba County: Yuba County was organized in 1850. Its development was also influenced by gold mining, agriculture, and railroad activities. Marysville flourished as the county seat due in part to

being the terminal point of rail lines in the area.

El Dorado County: The discovery of gold in 1848 at Sutter's Mill near Coloma sparked the mass migration of people from all over the world to the area. Between 1848 and 1852, boom towns appeared overnight. Some of these towns have disappeared, leaving few obvious traces of the former settlements, while others continue to flourish. Some towns have undergone changes over the years, such as the frontier town of Hangtown, which later became Placerville.

Placer County: In 1851, Placer County was organized from areas originally belonging to Sutter and Yuba Counties. The name Placer is an old Spanish word referring to surface mining. During the early times, placer mining was the principal method employed and the placers were among the richest in California. In addition to mining, agriculture and the railroads played a large role in the development of the county and its cities.

Archeology

The interpretations and designations of cultural resources in various areas are in technical reports stored at three California Archaeological Inventory centers: Northwest Information Center at Sonoma State University (for Yolo County sites), Northeast Information Center at California State University-Chico (for Sutter County sites), and the North Central Information Center at California State University-Sacramento (for Sacramento, Yuba, Placer, and El Dorado County sites). These reports reflect the presence of known archaeological sites, known geological, soil biological, hydrological, and topographical features, and the experience of archaeologists familiar with the field occurrences of such resources in the area.

Numerous recorded archeological sites exist in the Sacramento metropolitan area whose presence (though not specific locations) are acknowledged in the general plans of many cities and counties. The most common attributes associated with these sites are habitation debris, burials, and lithic scatter. Dense concentrations of sites have been found along rivers and streams, including the Cosumnes, American, and Sacramento Rivers. Significant finds in recent years are excavations at the Sutter Buttes, King Brown site, Jonson site, Blodget site, and the Deterding and Governor's Mansion sites. The issue of prehistoric sites being buried in deep sediments has occurred repeatedly. An archeological deposit was found near Arcade Creek, north of Sacramento, under nine feet of natural soil.

National Register of Historic Places

The National Register of Historic Places is the official list of the Nation's recognized cultural resources. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archaeological resources. The National Register is administered by the National Park Service under the Secretary of the Interior. Properties listed in the National Register include districts, sites, buildings, structures, and objects that are significant to American history, architecture, archaeology, engineering, and culture. These resources contribute to an understanding of the historical and cultural foundations of the Nation.

The National Register includes:

- All historic areas in the National Park System
- National Historic Landmarks which have been designated by the Secretary of the Interior for their significance to all Americans
- Properties significant to the Nation, State, or community that have been nominated by the States, Federal agencies, and others and have been approved by the National Park Service.

The Sacramento metropolitan area has a large number of historic resources that are listed on the National Register of Historic Places. A list of these resources is available from SACOG.

Local Government Historic Preservation Activities

Table 10 summarizes the historic preservation activities of local cities and counties in the Sacramento metropolitan area. Several jurisdictions have ordinances in place which focus on historic preservation. Jurisdictions that do not have specific historic preservation ordinances in place conduct archeological or historic surveys and part of the environmental analysis for specific development projects when potentially significant historic and cultural resources are known or suspected. The general plans of many local jurisdictions include a listing of locally recognized historic resources.

Section 4(f) Requirements

Historic and cultural resources are also protected under regulations of the National Historic Preservation Act and the Department of Transportation Act of 1966. Section 4(f) of the Transportation Act requires a comprehensive evaluation of all environmental impacts resulting from federal-aid transportation projects administered by the Federal Highway Administration, Federal Transit Administration, and Federal Aviation Administration that involve the use - or interference with use - of several types of land:

- Public park lands
- Recreation areas
- Wildlife and waterfowl refuges
- Publicly or privately owned historic properties of federal, state, or local significance.

This evaluation - called the Section 4(f) statement - must be sufficiently detailed to permit the U.S. Secretary of Transportation to determine that:

- There is no feasible and prudent alternative to the use of such land
- The program includes all possible planning to minimize harm to any park, recreation area, wildlife and waterfowl refuge, or historic site that would result from the use of such lands.

If there is a feasible and prudent alternative, a proposed project using Section 4(f) lands cannot be approved by the Secretary. If there is no feasible and prudent alternative, the proposed project must include all possible planning to minimize harm to the affected lands.

Detailed inventories of the locations and likely impacts on resources that fall into the Section 4(f) category are required in project-level environmental assessments.

Applicable Policies and Regulations

Archaeologic and paleontologic resources are frequently uncovered during construction of development projects, while historic resources are generally known. Strict mitigation and protection measures are required whenever such resources are discovered. In addition, there is a general requirement that a cultural resource survey and environmental analysis be prepared prior to commencement of any action, development, or land use change subject to CEQA or NEPA on lands subject to federal jurisdiction or for projects involving federal funds.

Table 10
Local Preservation Programs in the Sacramento Metropolitan Area

Jurisdiction	Components of Local Programs			Use for Information on Cultural/Historic Resources							
	Ordinance	Element	Commission	Designation	Districts	Assistance	National Register	CEQA Review	Section 106 Review	Publications	Public Awareness
Auburn	✓		✓	✓	✓					✓	✓
Davis	✓		✓	✓				✓	✓		✓
Live Oak	✓			✓							
Marysville								✓		✓	✓
Placerville	✓		✓		✓		✓			✓	✓
City of Sacramento	✓		✓	✓	✓		✓	✓	✓		✓
Winters	✓	✓	✓					✓		✓	
Woodland	✓	✓	✓	✓	✓		✓	✓	✓		✓
Yolo County	✓	✓	✓	✓							

Source: California Department of Parks and Recreation, *Survey of Surveys: A Summary of California's Historical and Architectural Resource Surveys, 1989*

Note: The City of Live Oak adopted a local historic preservation ordinance after the 1989 Survey of Surveys was completed.

POTENTIAL ENVIRONMENTAL IMPACTS AND RECOMMENDED MITIGATION

Impacts on cultural and historic resources are generally described in this section. More detailed evaluations will need to be conducted on a project-by-project basis to determine the exact resources found near proposed transportation projects included in the Preferred Option.

Criteria for Significance

Appendix G of the CEQA Guidelines indicates that a project will normally have a significant effect on the environment if it will

- Disrupt or adversely affect a prehistoric or historic archeological site or a property of historic or cultural significance to a community or ethnic or social group, or a paleontological site except as a part of a scientific study
- Conflict with established recreational, educational, religious, or scientific uses of the area. For the purposes of this report, this criterion for significance includes possible conflicts with the use of lands subject to Section 4(f) of the Transportation Act of 1966.

In addition, the following criterion of significance is used to determine potential impacts to cultural and historic resources that may result from implementation of the Preferred Option:

- Location in areas deemed “sensitive” for containing potentially significant but unknown prehistoric or historic sites, primarily along water bodies such as rivers, streams, and lakes.

Potential Cultural and Historic Resource Impacts

Impact: Transportation projects and programs included in the Preferred Option for the 1996 MTP may be located in close proximity to known historic resources such as structures and archeological sites. Depending on the location and size of these transportation projects and the type of work to be undertaken, construction of transportation projects in the Preferred Option could disrupt or significantly affect known prehistoric or historic sites and structures. These potential impacts are considered significant and adverse.

Recommended Mitigation

1. Local agencies and Caltrans should consult with appropriate archeological or historic information center clearinghouses to identify known cultural and historic resources that could be affected by transportation improvements included in the Preferred Option. Initial studies completed for specific projects in the Preferred Option should assess the potential for damage to known historic resources, and the environmental documentation for these projects should include measures to preserve and protect affected historic resources.

Impact: Transportation projects and programs in the Preferred Option could interfere with established recreational, educational, religious, or scientific uses of the areas in which they are located, including areas subject to Section 4(f) requirements. Examples include bridges over waterways in parks and preserve areas (i.e. American River Parkway, Discovery Park, etc) and projects that may affect state recreation areas (including new bicycle and pedestrian facilities). Potential impacts to lands subject to Section 4(f) requirements are considered significant and adverse.

movement occurs along transportation corridors, their placement largely determines what parts of the area will be seen. Even for people not using the transportation system at a particular time, or who never use certain modes of travel, transportation systems are usually a dominant element of the visual environment.

Viewsheds and visual quality are affected by air quality and more specifically, visibility. In the Sacramento metropolitan area, high pollutant emissions - combined with poor natural ventilation in the air basin - result in degraded visibility. Of particular note are photochemical smog and airborne particulates, finely divided solids or liquids such as soot, dust, aerosols, and mists that absorb sunlight, producing haze and reducing visibility.

Designated State and Local Scenic Highways

Figure 20 shows state and locally designated scenic highways in the Sacramento metropolitan area, only two of which are designated as state scenic highways (Route 160 in south Sacramento County, and Route 50 east of Placerville). The remainder are locally designated highways or streets. These designations represent a recognition of the high scenic and visual qualities of these corridors. Specific design guidelines are required by local regulation for all designated highways, and the state-designated corridors must be reviewed when improvements are proposed to determine if the highway will remain eligible for designation as a scenic corridor.

POTENTIAL ENVIRONMENTAL IMPACTS

The purpose of this analysis is to prepare a regional assessment of the potential visual impacts of the Preferred Option for the 1996 MTP. A transportation project can significantly alter the physical environment and its visual character. The concern over the environmental impact of a transportation project often is based on how it will affect the overall visual character of an area, rather than on the particular visual resource it could displace. Environmental settings such as wilderness areas, rivers in the National Wild and Scenic Rivers System, parks, recreation areas, wildlife and waterfowl refuges, and historic districts, sites, buildings, and structures are paramount visual resource concerns identified by Federal law.

Criteria for Significance

Appendix G of the CEQA Guidelines indicates that a project will normally have a significant effect on the environment if it will have a substantial, demonstrable negative aesthetic effect. For the purposes of this analysis, significant aesthetic impacts are defined as follows:

- Disruptions to important views or adjacent landforms
- The introduction of new visual elements in an existing and established landscape
- Improvements affecting state- or county-designated scenic highways.

Potential Aesthetics and Views Impacts

In general, most of the improvements proposed in the Preferred Option would occur in existing roadway or rail right-of-way corridors or are modifications to existing facilities. Road widenings involving two lanes or less are assumed to be within the existing right-of-way, minimizing the potential visual encroachment of surrounding lands. Most road widenings and interchange modifications are considered to have a potential impact that is less-than-significant since they occur in corridors that already have established visual features of the environment. Additional paving, narrowing of the buffer between traffic directions, and removal of mature vegetation, however, could reduce the visual quality along some existing corridors. Site-specific environmental reviews should identify such impacts and develop specific mitigation measures to protect visual quality.

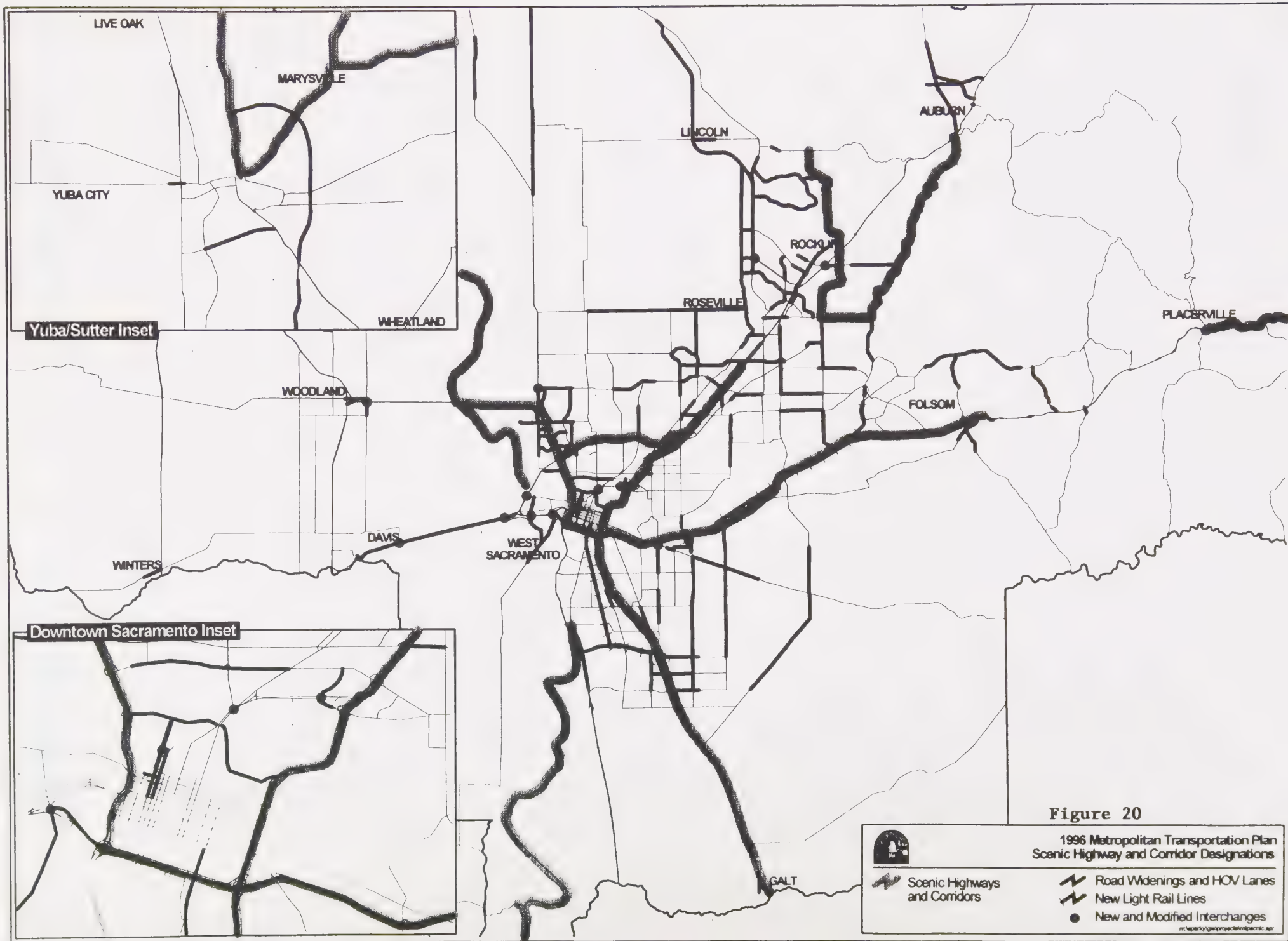


Figure 20

1996 Metropolitan Transportation Plan
Scenic Highway and Corridor Designations



Scenic Highways
and Corridors

Road Widenings and HOV Lanes

New Light Rail Lines

New and Modified Interchanges

m:\apark\gwp\project\mtp\pic\fig 20

The following types of improvements are considered to have potential impacts that are significant:

- New roadways, interchanges, and bridges
- New rail extensions (as opposed to increased service on existing rail corridors)
- Road widenings greater than two lanes
- Improvements affecting designated state or local scenic routes.

New roadways and interchanges create different types of visual impacts in rural and urban environments. In the rural setting, these facilities introduce a new visual element in the landscape and interrupt vistas. New transportation facilities in urban corridors increase visual clutter in the corridor and disrupt the visual pattern of existing urban development. Road widenings greater than two lanes also have a different impact in the rural and urban setting. Widenings in rural corridors can permanently alter natural features through grading, the addition of fill, and the removal of vegetation. In the urban context, widenings in existing corridors can remove established familiar physical features and block urban vistas. Improvements along designated state or county scenic corridors are considered significant because of the recognized high visual quality of these corridors.

New rail extensions and new stations introduce a new type of visual element in corridors. As with new highway facilities, new rail transit facilities can disrupt views, physically intrude in established communities, introduce visual nuisances - such as glare and reflection - and increase ambient light levels for adjacent neighborhoods.

Short-term impacts to visual resources may occur from construction-related activities as well, including the following:

- Blockage of views by construction equipment and staging areas in both rural and urban environments
- Disruption of the established landscape by temporary signage
- Increases in dust and particulates in the air caused by grading and transport of fill to and from construction sites.

These potential impacts can degrade the quality of the visual environment and can occur in conjunction with any type of transportation improvement. The more complex the proposed project, however, the greater the degree of visual impact caused by the construction activity. Thus, operational improvements would have much less of a short-term visual impact than a road widening or a new transportation facility.

The location, size, and access to staging areas for construction equipment are all important factors that can interrupt views. In the urban setting, staging areas abruptly change the visual context. In rural areas, they can interrupt panoramic vistas. Temporary signage - although essential during roadway construction, reconstruction, or maintenance - adds to the visual clutter in both urban and rural settings and can block significant views.

The Preferred Option includes the types of improvements that are considered to have potential aesthetics and views impacts that are considered significant. Because it is very difficult to completely mitigate the visual effect of new structures, the potential impacts are considered unavoidable. A general mitigation strategy is recommended, however, to reduce visual and aesthetic impacts to the degree possible.

RECOMMENDED MITIGATION

Local agencies and Caltrans should apply design review procedures as appropriate and necessary to minimize adverse effects of new construction.

UTILITIES AND SERVICES

INTRODUCTION

Although public utilities within the Sacramento metropolitan area are operated and maintained separately from the transportation system by various agencies, they often share the right-of-way or are built and maintained in easements adjacent to transportation facilities. This section identifies the public utilities that agencies responsible for transportation system construction and maintenance come into contact with on a regular basis.

ENVIRONMENTAL SETTING

Gas and Electric

Several gas and electric service purveyors operate in the Sacramento metropolitan area:

- Pacific Gas and Electric (PG&E) provides electric service to El Dorado, Yolo, Yuba, Sutter, and large portions of Placer County; PG&E also provides gas service to the entire metropolitan area.
- The Sacramento Municipal Utilities District (SMUD) supplies electric service to Sacramento County and to a five-square-mile area in the Dry Creek/West Placer area west of the City of Roseville.
- The City of Roseville supplies its own electrical service to its residents with power purchased from the Western Area Power Administration (WAPA).

Telephone

Local phone service is provided primarily by Pacific Bell, although a number of independent telephone companies operate in the metropolitan area as well. Long distance telephone service is provided by several carriers, including AT&T, MCI, and Sprint, among others. Pac Bell and Cellular One provide cellular telephone service to much of the metropolitan area.

Sewer Disposal and Treatment

Each county operates its own secondary or advanced system of sewage disposal and treatment to recover and properly refine the sewage before disposal. Primary treatment refers to the physical chemical treatment of wastewater; secondary treatment involves continuing the process with biological decomposers to rid the effluent of living organisms. Tertiary treatment, not yet in practice in many areas, consists of stripping the ammonia from the secondary treated outflow. At the completion of the process the former sewage is fit to drink.

The Sacramento Regional County Sanitation District serves most of Sacramento County residents. SRCSD is responsible for operating the wastewater treatment plant, located in Freeport. This county-wide facility is capable of processing up to 300 million gallons of sewage daily. The plant is designed as a secondary treatment plant at this time. In addition to running this plant, SRCSD is responsible for maintaining large interceptors conveying wastewater from collection points within the city and constructing new interceptors as needed.

In Yolo County, established sewerage exists in the concentrated urban centers of Davis, Winters, and Woodland, though they use septic tanks in the more rural areas. Most of rural Yuba and Sutter County residents are served by individual septic systems as well. The cities of Yuba City and Live Oak operate their own city-wide treatment plants. In Yuba County, there are four small treatment plants that serve the communities of Marysville, Linda, Olivehurst, and Wheatland.

Placer County has 37 separate community wastewater systems. In addition, numerous onsite sewage systems serve rural, outlying, and low population density areas. In El Dorado County, the El Dorado Irrigation District operates and maintains a total of five wastewater systems. The Georgetown Divide Public Utility District operates one community disposal system in the Auburn Lake Trails Subdivision On-Site Wastewater Disposal Zone, and manages on-site disposal for the remaining 950 lots in the zone. The South Lake Tahoe Utility District operates the wastewater systems in the vicinity of South Lake Tahoe. The remainder of the County is sewerred, with individual homes using on-site septic systems.

Water

Each of the counties is responsible for procuring water for its residents. In Sacramento County, there are 28 water purveyors which the Sacramento County Water Agency (SCWA) is responsible for coordinating. Most of Yolo County's water originates as rainfall. Indian Valley Reservoir is the one reservoir in Yolo County, and the Tehama-Colusa Canal empties water into Bird Creek in Yolo County. In Placer County, the Placer County Water Agency supplies water for the majority of the county. Sutter County residents are served primarily by four major water suppliers - the City of Yuba City, the City of Live Oak, Hillcrest Water Company, and the Sutter Community Service District. In Yuba County, fourteen different public agencies or districts - in addition to several private water companies - provide residential and agricultural water. In El Dorado County, the responsibility for water supply rests with the El Dorado County Water Agency.

Solid Waste

Each county also provides for its own solid waste facility needs. Sacramento County has nine active solid-waste facilities, including three transfer stations and two landfills. Yolo County operates one landfill located about five miles northeast of Davis. Yuba-Sutter Disposal Inc. operates the largest landfill within Sutter and Yuba Counties, although smaller facilities existing in more remote areas of Yuba County. Beale Air Force Base operates its own solid-waste facility for base operations only. Placer County operates the Western Regional Sanitary Landfill south of Lincoln and another landfill outside of the metropolitan area north of Tahoe City. El Dorado County owns the Union Mine Disposal Site and leases the operation of the facility to El Dorado Landfill Inc.

Emergency Services

Fire, law enforcement, and medical services are provided by a number of agencies throughout the metropolitan area. Law enforcement is generally provided by city police and county sheriffs, with the exception of the State Police and the University of California-Davis (which employs its own fire department as well). Fire suppression is the responsibility of various fire districts, which often employ paramedics for emergency medical services. Although some cities - most notably the City of Sacramento - have started their own ambulance services, many cities and counties contract ambulance services to private companies.

POTENTIAL ENVIRONMENTAL IMPACTS AND RECOMMENDED MITIGATIONS

Projected population increases will most likely increase the demand for utilities and services, thereby potentially creating an impact on these services. If substantial growth would occur as a result of MTP implementation, then secondary impacts to utilities and services would need to be analyzed in this section. Secondary impacts would arise from the increased demand for services resulting from increased population growth. As indicated in the Population and Housing section, however, implementation of the Preferred Option for the MTP is not expected to induce substantial population growth beyond that anticipated by local agencies. Therefore, only the potential impacts to utilities and services that would result directly from implementing the Preferred Option are evaluated in this

section.

Criteria for Significance

Implementation of the Preferred Option will be considered to create potential significant impacts if it will result in potential hazards or disruptions in utilities or services. Construction and maintenance activities associated with implementation of the Preferred Option that results in increased need for services which may not be anticipated will be considered a potential significant impact.

Gas and Electric Services

Impact: Construction of proposed transportation facilities in the Preferred Option may uncover and possibly sever underground gas or electric lines, thereby creating a potential risk of explosion or electrical blackout. Prior to construction, however, project proponents are required to procure gas, electric, telephone, water, and sewer diagrams and develop construction plans to avoid such facilities or relocate them. Because this measure is implemented as a matter of practice, the potential impact to utility lines should be reduced to a less-than-significant level, and no mitigation is required.

Impact: The Preferred Option includes proposed extensions of light-rail facilities. Extensions of the light-rail system will require more electricity production to accommodate increased operations. This is considered a potential impact. The Sacramento Regional Transit District (RT) and the Sacramento Municipal Utility District (SMUD) have been coordinating their efforts to ensure that SMUD has the ability to accommodate the electrical needs of an expanded light rail system. Therefore, the potential impact identified above is considered less-than-significant and no mitigation is required.

Telephone

Impact: Construction of proposed transportation facilities in the Preferred Option may uncover and possibly sever underground communication lines, thereby blocking telephone services to nearby residents and businesses. Prior to construction, however, project proponents are required to procure gas, electric, telephone, water, and sewage diagrams and develop construction plans to avoid such facilities or relocate them. Because this measure is implemented as a matter of practice, the potential impact to utility lines should be reduced to a less-than-significant level, and no mitigation is required.

Water

Impact: Construction of proposed transportation facilities in the Preferred Option may uncover and possibly sever water lines, thereby cutting off water supplies to nearby residents and businesses. Prior to construction, however, project proponents are required to procure gas, electric, telephone, water, and sewage diagrams and develop construction plans to avoid such facilities or relocate them. Because this measure is implemented as a matter of practice, the potential impact to utility lines should be reduced to a less-than-significant level, and no mitigation is required.

Impact: Construction and maintenance of proposed transportation facilities in the Preferred Option may require the use of water to mix materials, wash down surfaces, or wet down dirt-covered surfaces to minimize releases of particulate matter. Even though drought conditions have eased recently, water supply in the region is still limited since both surface water and groundwater sources have experienced excessive withdrawals. Therefore, the potential for increased use of water in transportation facility construction and maintenance is considered a significant impact.

Recommended Mitigation:

Local agencies and Caltrans should use non-potable water for mixing construction materials, washing

down surfaces, and wetting down dirt-covered surfaces.

Solid Waste

Impact: Construction of proposed transportation facilities in the Preferred Option may generate additional solid waste that will need to be disposed of in some manner. Unless recycling efforts are put into place to mitigate the potential impact of solid-waste generation, the impact could be significant.

Solid waste generated through transportation facility construction is reduced to the extent possible by recycling materials. Old asphalt from repaired and reconstructed roadways is used to build access roads at area landfills. Because materials recycling is already a matter of practice, the potential impact of solid-waste generation is reduced to a less-than-significant level. No mitigation is required.

Sewage Treatment and Disposal

Impact: Construction of proposed transportation facilities in the Preferred Option may uncover and possibly sever underground sewerage, thereby creating back-ups in residential and business sewerage or resulting in spills of raw sewage. Prior to construction, however, project proponents are required to procure gas, electric, telephone, water, and sewer diagrams and develop construction plans to avoid such facilities or relocate them. Because this measure is implemented as a matter of practice, the potential impact to utility lines should be reduced to a less-than-significant level. No mitigation is required.

Emergency Services

Impact: Construction activities associated with implementation of the Preferred Option may interfere with the response times of emergency vehicles, such as fire, police, or ambulance. As these activities are anticipated to be short-term and alternative routes will be available, this potential impact is considered to be less-than-significant. No mitigation is required. Local jurisdictions should, however, inform their police, fire, and paramedic units whenever construction activities are to take place within their jurisdictions.

ENERGY CONSUMPTION AND DEPENDENCE

INTRODUCTION

This report focuses on the consumption of non-renewable energy resources such as gasoline and diesel fuels, which are derived from petroleum. Light rail transit systems in operation or planned for the Sacramento area operate on electricity, thereby providing the region with more options for energy sources and reducing dependency on non-renewable sources. Alternative fuels for passenger vehicles (such as methanol) are not dependent on non-renewable resources, but have not penetrated the transportation sector due to continuing low oil prices.

ENVIRONMENTAL SETTING

Fuel Consumption in the Sacramento Metropolitan Area

Petroleum-based products account for the vast majority of fuel consumption in the Sacramento metropolitan area. Most forms of transportation - including on-road and off-road vehicles - use petroleum-based products in the form of gasoline and diesel fuel. Despite its rapidly increasing population, California has reduced its per capita energy consumption by 15 percent since 1978. This reduction has been achieved in part by implementing aggressive statewide energy efficiency standards for appliances and new buildings. California's greatest challenge to meeting its growth in population, however, comes from its reliance on petroleum fuels for transportation services. Transportation now accounts for about 48 percent of all energy consumed in the state and is almost 100 percent dependent on petroleum. In 1990, more than 17 million registered vehicles statewide used 13 billion gallons of gasoline.¹

In 1994, the California Energy Commission (CEC) prepared a forecast of statewide and regional transportation energy demand pursuant to SB 1214 (Killea, 1991)². According to the CEC, gasoline and diesel consumption in the Sacramento metropolitan area amounted to 656 million and 118 million gallons, respectively, in 1992.

Alternative Fuels and Vehicles

Alternative Fuel Vehicles (AFVs) are vehicles that run on fuels other than petroleum products. According to the definition in federal law, alternative fuels include:

- Alcohol fuels such as methanol (methyl alcohol), denatured alcohol (ethyl alcohol), and other alcohols, in a pure form (called "neat" alcohols) or in mixtures of 85 percent by volume (and mixed with up to 15 percent unleaded regular gasoline - M85 or E85) or more
- Compressed natural gas (CNG)
- Electricity
- Hydrogen
- Liquified natural gas (LNG)
- Liquified petroleum gas (LPG)
- Coal-derived liquid fuels
- Fuels other than alcohols derived from biological materials; like soy bean, rapeseed or other vegetable oil-based fuels.

¹ California Energy Commission, *1992-1993 California Energy Plan*, May 1992.

² California Energy Commission, *1993/1994 California Transportation Energy Analysis Report (Draft)*, February 1994

Various agencies - including the CEC, the California Air Resources Board, and local air districts - have promoted the use of alternative fuels and vehicles to reduce California's dependence on fossil fuels such as gas and diesel, and to improve air quality.

According to the CEC, alternative fuels, because of their simpler chemical composition, release fewer emissions from incomplete combustion. Several alternative fuels have been tested in motor vehicle and running emissions testing. Electricity as an alternative fuel offers even greater benefits to air quality because there is no fuel to burn. The only source of tailpipe "pollution" from electric vehicles (also known as "zero-emission vehicles") is the power plants that create the electricity, which can be regulated more closely as a stationary pollution source.³ Until recently, the California Air Resource Board's policy was that - by 1998 - two percent of all vehicles sold in California be zero-emission vehicles (primarily electric). CARB recently voted to delay implementation of the ZEV policy until after the year 2000.

Another form of alternative vehicles is the bicycle, which uses no fossil fuels. Outside of construction of bicycle and pedestrian facilities, the use of these facilities has a positive influence on fuel consumption by encouraging alternative forms of transportation⁴. The general plans of many jurisdictions throughout the Sacramento metropolitan area include goals and policies calling for the implementation of a comprehensive system of bikeways that will serve both commuter and recreational needs. According to SACOG's Household Travel Survey (1991), about 2.1 percent of households use bicycles for daily work trips, and about 3.2 percent of households use bicycles for daily non-work trips (such as shopping or visiting friends or neighbors, among others). As indicated in the Mobility and Access section of this report, the number of trips taken by "non-motorized" methods - biking and walking combined - in 1995 was about 8.7 percent.

Fuel Costs and Fuel Efficiency

As part of the CEC's SB 1214 Analysis, CEC staff also forecasted transportation energy costs between 1992 and 2015 for gasoline and diesel fuel, including all appropriate state and federal excise taxes. According to the CEC analysis, the cost of a gallon of gasoline is expected to increase from \$1.19 to \$1.52. Diesel fuel is expected to increase in price from \$1.24 per gallon in 1992 to \$1.41 per gallon in 2015.

In its May 1992 Energy Plan, the CEC reported that vehicle efficiency decreases dramatically at speeds below 15 miles per hour. Results of one study indicate that fuel consumption increases by 30 percent when average speeds drop from 30 to 20 miles per hour. A decrease from 30 to 10 miles per hour results in a 100 percent increase in fuel consumption. However, fuel efficiency at high speeds is dramatically reduced as well.

In 1977, the federal government enacted Corporate Average Fuel Economy (CAFE) standards of 18 miles per gallon, which increased one mile per gallon per year until 1985. The standard fell in 1986 to 26 miles per gallon and has slowly risen to 27.5 miles per gallon in 1990. At the same time that federal CAFE standards were enacted, the federal government prohibited the states from imposing their own vehicle efficiency standards.

Although federal CAFE standards are not scheduled for review in the foreseeable future, California's air quality standards indirectly achieve greater fuel economy by encouraging auto makers to design cleaner automobiles. Based on these improvements, the CEC projects that fuel efficiency in automobiles will

³ Information available from the California Energy Commission from its World Wide Web site located at "<http://www.energy.ca.gov>"

⁴ Feather River Air Quality Management District, *Yuba-Sutter Bikeway Master Plan* (Draft Report), November 1995.

increase from about 24.4 miles per gallon in 1992 to about 26.4 miles per gallon in 2010. Using these figures, it is estimated that average fuel efficiency is expected to increase to 24.7 miles per gallon in 1995, and to 27.0 miles per gallon by 2015⁵.

POTENTIAL ENVIRONMENTAL IMPACTS

Criteria for Significance

Potential impacts on energy consumption are considered significant if the rate of increase in gasoline and diesel consumption between 1995 and 2015 exceeds the projected rate of population increase during the same period. In other words, estimated increases in fuel consumption under the Preferred Option of greater than 45.0 percent will be considered significant.

Potential Energy Consumption Impacts

Table 11 shows estimated gasoline and diesel fuel consumption estimates for the 1995 base year and for the 2015 Preferred Option. Current and future fuel consumption for on-road vehicles can be estimated by comparing average efficiency in 1992 and in 2015 to projected vehicle miles of travel under each scenario.

Table 11
Estimated On-Road Fuel Consumption for 1995 and the 1996 MTP Preferred Option

	Base Year 1995	Preferred Option
Average Fuel Efficiency	24.7	27.0
Vehicle Miles of Travel	39,220,298	62,551,599
Estimated Fuel Consumption	1,589,153	2,316,726
% Change from 1995 to 2015	--	45.8

Under the Preferred Option, fuel consumption is projected to increase by 45.8 percent between 1995 and 2015. Since this rate of increase is greater than the projected population increase of 45 percent, this is considered a significant impact.

RECOMMENDED MITIGATION

1. State and federal agencies should increase fuel efficiency standards for automobiles and trucks to reduce energy consumption.
2. Local agencies should encourage volunteer compliance with adopted trip reduction ordinances (in accordance with state law) to reduce vehicle trips and vehicle miles traveled, which in turn would reduce energy consumption.

⁵ SACOG staff interpolation and extrapolation using 1992 and 2010 projected fuel efficiency from the California Energy Commission.

HAZARDOUS MATERIALS TRANSPORT

INTRODUCTION

Hazardous waste is defined by Section 25117 of Division 20 of the Health and Safety Code as:

A waste, or combination of wastes, which because of its quantity, concentration, physical, chemical, or infectious characteristics, may either

- 1. Cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or*
- 2. Pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of, or otherwise managed.*

ENVIRONMENTAL SETTING

Within the Sacramento metropolitan area, the individual counties have prepared hazardous waste management plans pursuant to AB 2948 (Tanner, 1986), which authorized and funded the preparation of these plans. Upon the completion of plans by Sacramento, Sutter, Yolo, Yuba, Placer, and El Dorado Counties, SACOG completed the Hazardous Waste Management Plan for the SACOG Region (January 1990) to compile and integrate the six individual plans and serve as a resource document. It should be noted that the regional plan serves as an information document only. Any enforceable planning decisions or designations regarding the transport and treatment of hazardous waste, and the siting of hazardous waste treatment facilities, is the responsibility of each county under the provisions of its individual adopted hazardous waste management plan.

Hazardous Waste Generation

Table 12 shows the total hazardous waste generation of individual counties in the Sacramento metropolitan area from SACOG's regional waste management plan. It should be noted that the figures included in table 12 date back to 1990, the last time that any of the local hazardous waste management plans were updated.

Table 12
Current Hazardous Waste Generation of Individual Counties in the SACOG Region

County	Quantity of Manifested Wastes	Drilling Muds and Wastes from Site Cleanups	Wastes from Small Quantity Generators	Household Hazardous Waste	Total
El Dorado	94.1	76.0	3,400.5	287.0	3,857.6
Placer	2,802.2	241.5	2,423.3	157.6	5,624.6
Sacramento	40,748.0	10,232.0	8,990.0	9,570.0	69,540.0
Sutter	52.0	39.0	2,282.2	86.4	2,459.4
Yolo	6,863.2	387.7	3,297.2	99.7	10,647.8
Yuba	888.3	0.0	1,902.6	64.9	2,855.8
Total	51,447.8	10,976.2	2,295.6	10,265.6	94,985.2

Table 13 shows projected waste generation of individual counties in the Sacramento metropolitan area for the year 2000 (without accounting for waste reduction).

Table 13
Projected Waste Generation of Individual Counties in the SACOG Region in Tons Per Year

County	Projected Industrial Waste	Projected Cleanup Wastes	Projected New Wastes	Projected Household Waste	Total
El Dorado	5,580.5	3,358.6	0.0	488.0	9,427.1
Placer	6,079.3	6,327.7	25.0	226.9	12,658.9
Sacramento	61,990.3	7,610.0	0.0	12,370.0	81,970.3
Sutter	3,413.0	160.0	0.0	108.0	3,681.0
Yolo	9,950.5	8,327.5	393.1	118.7	18,789.8
Yuba	3,234.9	0.0	0.0	127.5	3,362.4
Total	90,248.5	25,783.8	418.1	13,439.1	129,889.5

Hazardous Waste Management and Transportation

There are four general categories of waste management: source reduction, recycling, treatment, and residuals disposal. All of these activities can occur on-site at the location where they are generated. Recycling, treatment, and disposal can also occur off-site and would require additional intermediate support to not only store but transport the wastes.

The potential harm that hazardous waste can cause on people and the environment has warranted concern of both the national and local governments on the safe transport of hazardous materials. Because hazardous materials are transported primarily on highways and local roads, there is greater public exposure to these materials.

There are two ways in which local governments can regulate hazardous material and waste transport. One way is to prohibit or limit hazardous material and waste transport. While local governments are generally preempted from regulating hazardous waste transport on state and interstate highways, they are explicitly given the responsibility for regulating hazardous waste transport on local streets. Under AB 1861 (Campbell, 1985), local governments can regulate hazardous material and waste transport on local roads as long as...

- The road is appreciably less safe than reasonable alternatives as determined using the Federal Highway Administration's "Guidelines for Applying Criteria to Designate Routes for Transporting Hazardous Materials"
- The local regulation is not pre-empted by federal law
- The local regulation does not limit necessary access to businesses requiring the services of hazardous materials transporters
- The local regulation allows hazardous materials transporters access to service facilities that are within one-half mile of a state or interstate highway
- Neighboring jurisdictions agree that the regulation is not incompatible with through transportation
- The regulated road is posted
- The California Highway Patrol is notified of the regulations and includes the restricted road in their published list of restricted highways.

In support of the local governments' ability to regulate hazardous materials transport on local roads, the California Highway Patrol has issued regulations to trucking companies and drivers who carry explosives requiring drivers to follow such routes as may be prescribed or established by local authorities. Further, the CHP requires that:

Where routes are not prescribed by local authority, every driver of a vehicle transporting explosives shall avoid, so far as practicable, and, where feasible, by prearrangement of routes, driving into or through congested thoroughfares, places where crowds are assembled, streetcar tracks, tunnels, viaducts, and dangerous crossings¹.

The second way that local governments can regulate transportation is to conduct a transportation risk analysis that affects the siting of hazardous waste facilities. Sacramento County conducted a study that identified the high-risk transportation routes as part of their hazardous waste management planning process. Their methodology included identifying routes and intersections that have higher than average accident rates. Subsequently, the County developed a facility siting criterion that states that "Facilities shall not be sited in areas requiring hazardous waste transportation on routes having above average accident rates unless mitigation measures have been employed that reduce the risk to acceptable levels." Examples of mitigation measures include the widening of roads or time restrictions on hazardous waste transport. This type of transportation regulation can even be extended to state and federal highways as long as it is a regulation on a facility - not on the highway itself. While this example has applied the regulations to hazardous waste facilities, local governments can apply similar conditions on permits for businesses requiring hazardous materials deliveries.

Although there can be local laws which regulate various aspects of hazardous waste transportation on city and county roads, movement usually involves long-distance travel on state and interstate highways. Based on the county hazardous waste management plans completed prior to 1990, the following interstate and primary routes are most likely to be used for the transport of hazardous wastes:

Interstates: 5, 80, 505
State Highways: 16, 20, 50, 65, 70, 99, 113, 193.

Routes 50, 505, and 99 south of Sacramento are designated as SHELL routes (Subsystem of Highways for the Movement of Extra Length Permit Loads) and carry significant volumes of truck traffic. Interstate 80, although not a SHELL route, is considered a large truck route and carries one of the highest truck traffic volumes in the region. Route 70 serves as an important secondary truck route when Interstate 80 is closed due to winter storms.

The California Highway Patrol has identified several routes, safe stopping places, and safe parking places on the state highway system for the transport of explosive materials and inhalation-hazard shipments¹:

Routes: Interstates 5, 80, and 505

Safe Stopping Places and Safe Parking Places for Explosive Materials Transporters:

- I-5/Dunnigan: Dunnigan Truck Service.
- I-80/Sacramento County: Inspection Stop (both directions) - State of California platform scales, 0.8 miles west of Antelope Road. Safe stopping place when the driver is given specific instruction by a CHP officer.

¹ California Highway Patrol, *Explosive Materials Shipments: Routes, Safe Stopping Places and Safe Parking Areas*. January 1995.

- I-80/Sacramento: Sacramento 76 Auto/Truck Plaza, 2828 El Centro Road.
- I-80/Donner Summit: Required inspection stop.
- I-80/Blue Canyon (westbound vehicles): Required inspection stop.
- I-80/Alta: Old Baxter's Cafe. North frontage road between Crystal Springs Road Overpass and Baxter Road overpass.
- I-80/Nyack: Nyack Garage. 1 Nyack Road.
- Route 50/Echo Summit: Required inspection stop.

Safe Stopping Places and Safe Parking Places for Inhalation-Hazard Shipments:

- I-5/Sacramento (southbound only): Elkhorn Rest Area near Sacramento International Airport.
- I-80/Sacramento: Sacramento 76 Auto/Truck Plaza, 2828 El Centro Road.

Response Procedures for Hazardous Materials Spills

Emergency response programs include two major activities:

- Responding to a release of hazardous materials into the environment
- Implementing AB 2185, AB 2187, and AB 3777 and local emergency response/disclosure ordinances.

Hazardous material releases, typically spills or gas vapor releases, require special attention due to the serious health threat that they can pose. Crews responding to spills or toxic gas releases must be specially trained and equipped to handle the unique problems presented by hazardous materials.

The state-mandated disclosure and emergency response programs (AB 2185, AB 2187, and AB 3777) require local users of hazardous materials to submit emergency response plans and hazardous material inventory lists to a local agency. The local agency is responsible for developing an emergency response plan for the area.

POTENTIAL ENVIRONMENTAL IMPACTS AND RECOMMENDED MITIGATIONS

Criteria for Significance

Implementation of the Preferred Option will be considered to create a potential impact that is significant under the following conditions:

- Implementation is likely to result in generation of hazardous waste from construction and maintenance of transportation facilities that cannot be recycled or reused
- Implementation results in potential safety risks in the transport of hazardous materials.

Potential Hazardous Materials Transport Effects

Impact: Construction and maintenance activities associated with the implementation of the Preferred Option will most likely involve the use of solvents and architectural coatings that may be considered hazardous if not used, stored, or disposed of properly. Any excesses which exist upon completion of transportation projects in the Preferred Option could be considered hazardous materials or wastes which may need to be disposed of properly. This is a potential impact. However, materials which are left over upon the completion of projects included in the Preferred Option likely can be stored properly

and used for other transportation projects or purposes. Such use or reuse would reduce the amount of excess materials that would require disposal. In addition, steps can be taken to minimize the risk associated with handling hazardous materials in the process of facility construction. Therefore, the potential impact is considered less than significant and no mitigation is required.

Impact: With regard to hazardous materials transport, implementation of the Preferred Option could result in two outcomes:

- Potential routes for the transport of hazardous materials are likely to become safer because of proposed improvements in the Preferred Option. Although hazardous materials are generally transported on the regional roadway network, other hazardous materials - such as gasoline and other fuels - are often transported on local streets to their destinations. The Preferred Option includes transportation facility improvements that will reduce congestion in a number of corridors in the metropolitan area. These facilities could become safer by reducing congestion and resulting accidents. This is considered a potential beneficial effect.
- Even with the improvements proposed in the Preferred Option, congestion is still projected to increase by 2015. As shown in the Mobility and Access section of this report, congestion under the Preferred Option is likely to be nearly five times greater in 2015 than it was in 1995. The increase in congestion could contribute to accident rates, especially in corridors where no transportation improvements are proposed. Where these accident rates involve vehicles used in the transport of hazardous materials, this presents a potential significant impact.

Because it is anticipated that no additional projects or programs will be added to the Preferred Option - certainly none that could maintain congestion at current levels - the potential impact is considered unavoidable.

Recommended Mitigation: Sufficient mitigation is unavailable to reduce the potential impact to less-than-significant levels.

SOCIAL AND ECONOMIC EFFECTS

INTRODUCTION

The CEQA Guidelines indicate that economic or social information may be included in an EIR, but that economic or social effects of a project shall not be treated as significant effects on the environment. To the degree that social or economic effects could result in potential physical changes to the environment, then these subsequent changes could be treated as environmental effects.

The primary purpose of this section is to evaluate the potential for the Preferred Option to create disproportionate impacts on any socio-economic group in the Sacramento metropolitan area.

Social and Economic Setting

The Population and Housing section of this report - which is drawn from SACOG's 1995 *Regional Housing, Population, and Employment Projections* - shows the current and projected future population and employment growth in the Sacramento metropolitan area. Between 1995 and 2015, population is expected to increase from 1,800,500 to 2,610,800. Also during this time period, employment is expected to increase from 709,800 to 1,105,200.

On February 11, 1994, President Clinton issued Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." This order is designed to focus federal attention on the environmental and human health conditions in minority communities and low-income communities. The order requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations.

For the purposes of this report, "minority populations" and "low-income populations" are defined as follows:

- "Minority populations" are persons who are identified by the U.S. Census Bureau as "black," "American Indian, Eskimo, or Aleut," "Asian or Pacific Islander," "Other Race," or persons of "Hispanic origin."
- "Low-income populations" are persons having an income below 80 percent of the median income identified by the U.S. Census Bureau for each metropolitan statistical area (Sacramento and Yuba City MSAs).

Table 14 shows regional ethnicity distribution from the 1990 Census. The dollar figure shown for each county represents that county's household median income (as determined by the U.S. Census Bureau).

Figure 19 shows the average percentage of persons identified as minorities within each SACOG minor zone (the smallest area of geographical analysis) for the Sacramento metropolitan area. Figure 20 shows low-income areas in the Sacramento metropolitan area. Low-income areas are defined as SACOG minor zones that have a median household income at or below 80 percent of the median household income for a Major Statistical Area (MSA) in which that zone resides. This is a common definition used by the Federal Department of Housing and Urban Development to evaluate areas for community block grants. The two MSAs in the Sacramento metropolitan area are the Yuba-Sutter MSA (which includes all of Yuba and Sutter Counties) and the Sacramento MSA (which includes El Dorado, Placer, Sacramento, and Yolo Counties).

Table 19
Regional Ethnicity Distribution and Household Median Income - 1990 Census

Jurisdiction	Median Income	Total Population	White	Black	American Indian/ Eskimo/ Aleut	Asian/Pacific Islander	Other	Hispanic
El Dorado	\$35,058	125,995	119,118	606	1,351	2,456	2,464	8,777
Placer	\$37,601	172,796	161,948	1,033	1,861	3,806	4,148	13,871
Sacramento	\$32,297	1,041,219	782,326	97,129	12,068	96,344	53,352	121,544
Yolo	\$28,866	141,092	107,113	3,172	1,741	11,914	17,152	28,182
Sacramento MSA Total	\$32,734	1,481,102	1,170,505	101,940	17,021	114,520	77,116	172,374
Sutter	\$27,096	64,415	49,521	1,041	941	6,079	6,833	10,592
Yuba	\$21,523	58,228	45,541	2,437	1,675	4,917	3,658	6,728
Yuba-Sutter MSA Total	\$24,312	122,643	95,062	3,478	2,616	10,996	10,491	17,320

Potential Environmental Effects Resulting from Social and Economic Changes

For the 1996 Metropolitan Transportation Plan as a whole, economic and social changes (in the form of new forecasts in population and employment growth between 1995 and 2015) will create physical changes to the environment. To the degree that these economic and social changes will create changes in land uses and transportation systems and their resultant changes to the environment, these changes have been addressed in the environmental documents for local general plans. As requests for general plan amendments and rezoning are submitted to local agencies, these requests undergo additional CEQA review at the local level to determine their consistency with existing plans - including regional plans such as the Metropolitan Transportation Plan - and to identify any additional environmental effects that may result.

To the degree that economic and social changes require changes to the transportation system, the potential environmental effects of these changes are evaluated in both the environmental documentation for local general plans and in the environmental documentation for the Metropolitan Transportation Plan. In the various sections of this report, the physical changes to the environment that may result from implementation of transportation projects and programs in the MTP are evaluated to the degree possible given the programmatic nature of this EIR. Future project-specific environmental documentation will evaluate the specific physical changes to the environment that may result from implementation of specific projects in the MTP once the precise location, size, and design of these projects are known.

Potential Effects of the MTP on Minority and Low-Income Populations

Draft environmental justice guidelines from the Federal Highway Administration¹ indicate that:

"An adverse (environmental) impact shall be found to have a disproportionately high and adverse effect on low-income or minority populations when:

¹ Proposed U.S. Department of Transportation Order on Environmental Justice, August 17, 1995.

- (a) *The adverse impact is predominantly borne by a minority population and/or a low-income population, or*
- (b) *The adverse impact that will be suffered by the minority population and/or the low-income population is more severe or greater in magnitude than the non-minority population and/or non-low-income population.*

As figures 21 and 22 show, major transportation projects are proposed in areas in which significant minority and low-income populations reside. Although these projects could have an environmental impact that could disproportionately affect people in these areas, it is not possible to determine specific impacts to minority and low-income populations near these facilities until project-specific environmental and engineering work is completed. For example, transportation projects completed within existing right-of-way may create fewer adverse impacts than projects that will require the acquisition of additional land where homes and businesses may be located or where environmental resources could be affected. At the later stage of environmental review, precise project locations, size, and design will be defined, and potential adverse environmental impacts that could disproportionately affect minority or low-income populations can be better defined.

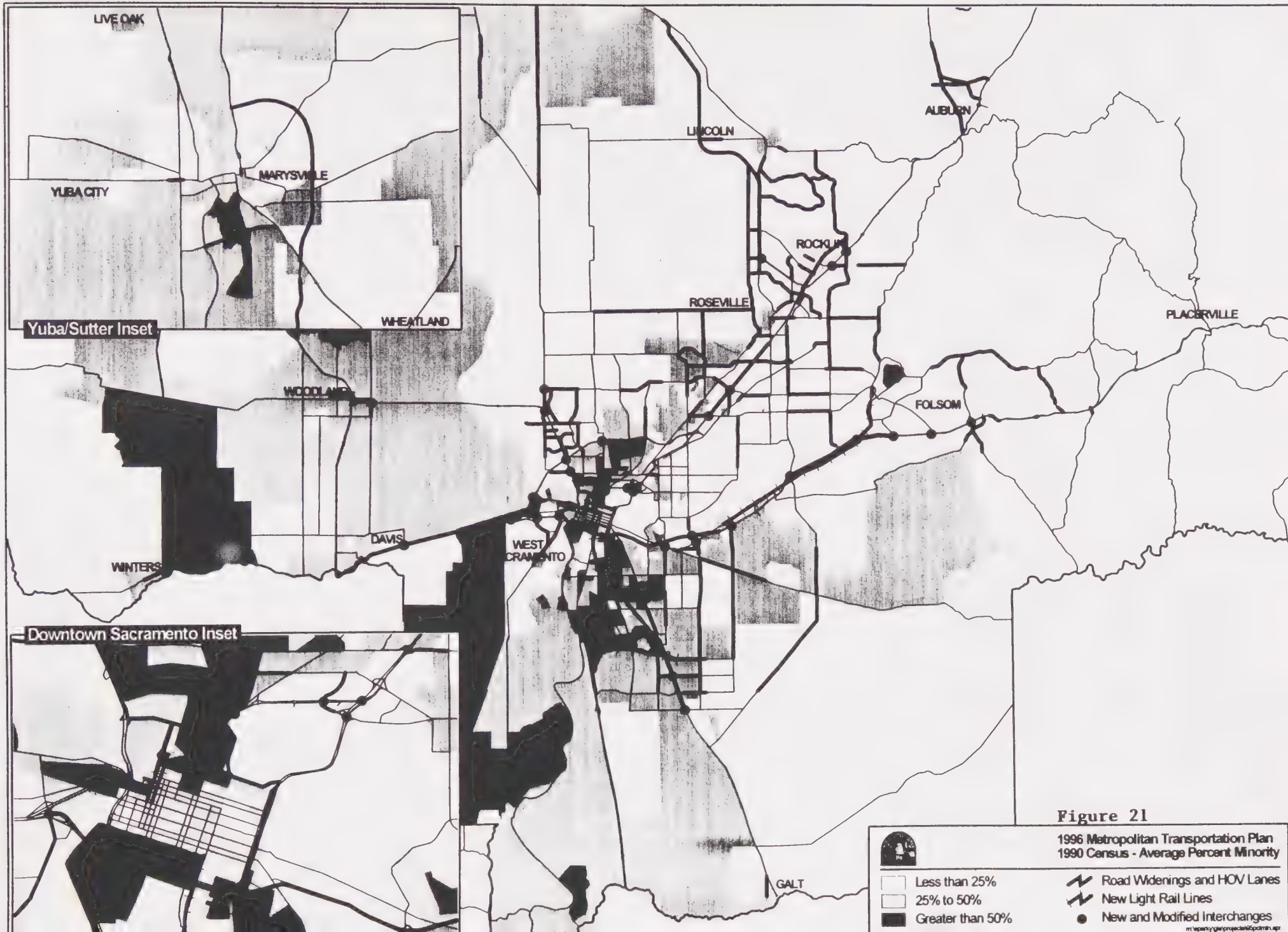
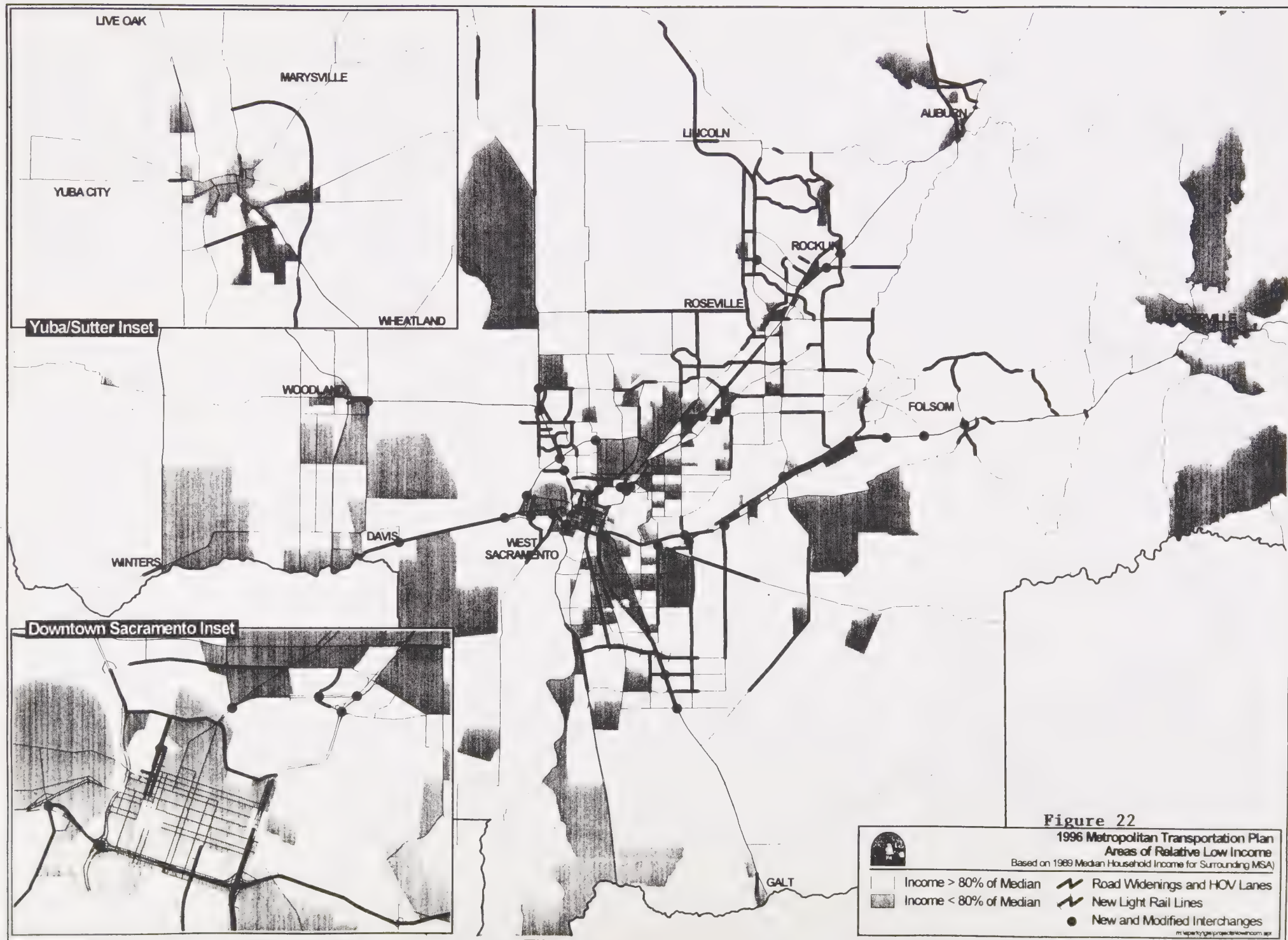


Figure 21

1996 Metropolitan Transportation Plan
1990 Census - Average Percent Minority



Local Economic Development Goals

Local jurisdictions in the Sacramento metropolitan area have developed economic development goals or statements as part of their general plans. In general, local jurisdictions encourage economic development that is consistent with the character and scale of existing development within their respective counties. The following is a synopsis of the economic development goals of the counties in the metropolitan area:

Sacramento County²: The General Plan is a partner in a larger effort by local business organizations to improve Sacramento County's economic climate. The Plan gives direction and support to major employment sources which are changing location or attracted to the area as a production site. It provides opportunity to establish all types of shopping facility, enables each distinct type of industry to find locations in Sacramento County, improves regional competitiveness through addressing land use and public services efficiency, and supports overall economic development activities. Broad strategies in the Plan, which address efficient land use and public services, are at the heart of any economic development strategy.

One of Sacramento County's stated economic development policies that relates to transportation is to "assure that regionally-oriented commercial and office uses and employment concentrations have adequate road access, high frequency transit service and an adequate but efficient supply of parking."

Sutter County³ and Yuba County⁴: Agriculture and related industries make up a large portion of Sutter County's economic base, although construction, manufacturing, transportation, retail, and professional services contribute significantly to the local economy as well. The primary components of the Yuba County economic base are agriculture and related activities, the military (Beale Air Force Base), retail trade, professional services (mainly health and educational services), construction, and manufacturing. Portions of Yuba and Sutter County are within a California Enterprise Zone that was designated in 1986. This zone is a four-jurisdiction, joint partnership among the counties of Yuba and Sutter and the cities of Marysville and Yuba City. The enterprise zone encompasses large portions of Linda, Olivehurst, and Marysville, and extends to the Bear River on either side of Route 70. In Sutter County, the downtown portion of Yuba City is included in the enterprise zone.

Yolo County: Yolo County's long-standing policy has been to encourage economic development and urban growth in the incorporated cities (Davis, West Sacramento, Winters, and Woodland), and to preserve the agricultural focus of the unincorporated county. Goals and objectives of the individual cities include the development of a diverse economic base that meets the needs of their residents and to promote economic activity in their central business districts.⁵

El Dorado County⁶: El Dorado County's economic activity centers around agricultural-based industries, commercial facilities, retail and tourism, home occupations, and business parks/industrial sites. The County seeks to provide greater opportunities within the County for its residents to improve the jobs-housing balance, and to promote a positive business climate by providing an adequate quantity of public resources to support and implement economic development activity.

² Sacramento County General Plan, Land Use Element, December 1993.

³ Sutter County General Plan, January 1994.

⁴ Yuba County General Plan Background Report, May 1994.

⁵ Summary of general plan policy statements in the Davis, West Sacramento, Woodland, and Winters general plans.

⁶ El Dorado County General Plan, January 1994.

Placer County⁷: Placer County's primary economic activities include retail trade, professional and personal services, government, construction, and manufacturing. Existing trends in the location of business activity and jobs in Placer County are expected to continue, and Placer County is expected to capture more business development from a broader range of economic sectors in the long-term.

As part of its economic development goal to maintain a healthy and diverse local economy, Placer County's policies include the retention, expansion, and development of new businesses by designating adequate land and providing infrastructure in areas where resources and public facilities and services can accommodate employment generators.

Consistency of the MTP with Local Economic Development Goals: One of the stated purposes of the MTP is to serve population and employment growth projected in the Sacramento metropolitan area between 1995 and 2015. As shown in the Land Use section of this report, proposed transportation improvements in the Preferred Option are located primarily in areas projected for substantial employment growth. As indicated in earlier in this section, many local agencies - in their economic development goals or statements - call for the provision of adequate infrastructure to serve these areas of projected economic growth.

The Cost of Transportation

In its draft "1993-1994 California Transportation Energy Analysis Report," the California Energy Commission attempted to quantify the external costs of transportation energy use. During this process, CEC staff performed an extensive literature review and analysis to identify an economic value for seven cost categories that entailed potentially significant avoidable costs, and for which fairly reliable cost estimates were available in the literature. The seven cost categories include:

- Congestion (\$0.005-\$0.008 per mile)
- Accidents (\$0.074 per mile for light-duty vehicles, \$0.270 per mile for buses)
- Transportation infrastructure and maintenance (\$0.006 per mile for light duty vehicles, \$0.012 per mile for buses)
- Air emissions (\$0.012-\$0.014 per mile)
- Climate change, as reflected in changes in carbon dioxide levels (\$0.084 per gallon of gasoline)
- Oil spills (\$0.004 per gallon of gasoline)
- Energy security (\$0.003 per gallon of gasoline).

In its report, CEC staff recognized that - at best- quantifying transportation's external costs is difficult and may not yield accurate or precise estimates⁸. CEC staff indicated that further research is needed to improve both general and specific methods for estimating external costs, and to develop new categories of costs and benefits that are currently unquantifiable. Also, CEC does not include the capital cost of the existing transportation system, instead recognizing these costs as unavoidable since the facilities have already been constructed and the money has been spent.

CEC staff included the following types of costs within each category:

- *Congestion Costs* include an estimate of the value to personal time spent in recurring congested conditions.

⁷ Placer County General Plan Background Report, September 1992.

⁸ California Energy Commission, 1993-1994 California Transportation Energy Analysis Report (Draft), February 1994

- *Accident Costs* include a number of cost types, including medical costs, travel delay resulting from accidents, workplace costs, administrative/insurance costs, legal costs, earnings and household production costs, and pain/suffering/lost quality of life costs.
- *Highway Infrastructure and Service Costs* include the cost of maintenance, repair, and motor-vehicle services provided on the highway system.
- *Air Emission Costs* include estimates of the damage caused by air pollution, using forecasted vehicle emissions from the Air Resources Board's mobile-source emission factors (EMFAC7F and Burden7F).
- *Climate Change Costs* include estimates of the value of carbon emission control costs, since carbon dioxide is the major contributor to ozone depletion and potential climate changes.
- *Oil Spills Costs* include a rough estimate of the external costs of cleaning up oil tanker spills and the natural resource damages caused by oil spills.
- *Energy Security Costs* include U.S. defense expenditures attributable to avoiding a disruption of crude oil supplies from Middle Eastern oil producers, and economic costs such as long-run reductions in the gross domestic product (GDP) attributable to OPEC's ability to raise crude prices above the competitive crude oil price.

For the purposes of this report, the seven quantified costs identified by the California Energy Commission are used to develop a *general concept* of the potential costs and benefits of the Preferred Option for the 1996 Metropolitan Transportation Plan. Although the cost estimates developed by CEC staff may not yield precise figures for the external costs of transportation policies, they nevertheless provide some measure by which to compare the Preferred Option and other MTP alternatives based on economic considerations.

Table 15 shows the potential costs associated with the Preferred Option compared to the 2015 Constrained Plan option, which represents transportation improvements that could be implemented without the development of new revenue sources. It should be noted that the figures in Table 15 include both public sector and private sector costs.

Table 15
Potential External Costs of the Preferred Option
(per day)

Cost Category	1995 Base	2015 Constrained Plan	2015 Preferred Option
Congestion (\$0.008 per mile) using person-miles in LOS "F" conditions	\$3,515	\$20,005	\$16,752
Accidents (\$0.172 per mile average) using vehicle miles of travel	\$6,745,891	\$10,745,719	\$10,758,875
Transportation infrastructure and maintenance (\$0.009 per mile average) using vehicle miles of travel	\$352,983	\$562,276	\$562,964
Air emissions (\$0.014 per mile) using vehicle miles of travel	\$549,084	\$874,652	\$875,722

Table 15
Potential External Costs of the Preferred Option
(per day)

Cost Category	1995 Base	2015 Constrained Plan	2015 Preferred Option
Climate change, as reflected in changes in carbon dioxide levels (\$0.084 per gallon of gasoline) <i>using estimated fuel consumption</i>	\$133,489	\$194,367	\$194,605
Oil spills (\$0.004 per gallon of gasoline) <i>using estimated fuel consumption</i>	\$6,357	\$9,256	\$9,267
Energy security (\$0.003 per gallon of gasoline) <i>using estimated fuel consumption</i>	\$4,767	\$6,942	\$6,950

In selecting congestion and air emission values for use in the analysis, SACOG staff chose the higher of the range provided by the California Energy Commission. For accidents and infrastructure values, SACOG staff chose the average of the light-duty vehicle and bus values to account for the operation of heavier-duty vehicles (both buses and medium/heavy-duty trucks) on the metropolitan transportation system.

It should be noted that the estimated air emission costs of the Preferred Option appear to be slightly higher than the 2015 Constrained Plan option, although the Air Quality section indicates that emissions under the Preferred Option are projected to be lower than both existing (1995) levels and the 2015 Constrained Plan levels. The CEC estimates of air emission costs are based on the number of vehicle miles of travel driven on the transportation system, and not on the level of emissions itself. However, SACOG's air quality analysis takes into account vehicle speeds on the transportation system, the number of vehicle trips, and vehicle hours of delay. All of these factors combined are expected to result in fewer emissions under the Preferred Option than the 1995 base year and may actually result in lower costs associated with air emissions than estimated by the CEC.

Summary of Social and Economic Effects

- The Preferred Option has the potential to result in adverse effects on minority and low-income populations in areas where major transportation improvements are proposed. At the project-specific environmental review stage, potential adverse effects should be evaluated and specific mitigation developed once the location, size, and design of proposed transportation facilities are known.
- The Preferred Option appears to be consistent with local economic development goals by including transportation infrastructure improvements in areas where significant employment growth is forecasted.
- Because vehicle miles of travel and fuel consumption are estimated to be slightly higher under the Preferred Option compared to the 2015 Constrained Plan option, some potential external costs of the Preferred Option are projected to be slightly higher than potential external costs of the constrained plan option.

CHAPTER FIVE: DISPOSITION OF IMPACTS

RELATIONSHIP BETWEEN SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

The proposed MTP serves as the direction for managing the region's environment and its transportation facility developmental activities in the future. Without the MTP, it is difficult to ensure a balancing of short-term environmental uses with long-term productivity. Adoption of the MTP will not, however, preclude uses and options of revising the plan to reflect new information, changes in policy, or a general desire to pursue other alternatives.

Some of the potential adverse impacts of the MTP are due to construction of proposed transportation improvements. Although construction activities for major facilities may be phased over several years, resultant impacts must be analyzed in the context of the long-term productivity of the environment.

This section summarizes potential impacts of implementation of the 1996 Metropolitan Transportation Plan in terms of tradeoffs between short-term value and long-term productivity of the environment.

Population, Housing, Land Use

The MTP is intended to minimize the potential for short-term gain at the expense of long-term impacts, by planning transportation projects to accommodate planned growth in the region and by ensuring a balance between land use development and phasing of transportation system improvements.

Mobility and Access

Without substantial improvements to the regional transportation system, congestion and delay are projected to increase dramatically by 2015. The MTP plans improvements to ensure that long-term mobility is not substantially degraded.

Air Quality

A major goal of the MTP is to make progress towards long-term attainment of air quality standards in the face of continued regional growth.

Noise

The MTP would result in a mix of beneficial and adverse impacts on traffic noise. As new and widened transportation facilities are developed, measures would be implemented to reduce the long-term impacts of increased traffic volumes on noise levels at sensitive uses.

Water Resources

The MTP will likely decrease the amount of permeable surface area of ground within the region and will result in increased runoff due to urbanization and transportation facility development.

Biological Resources

Implementation of any MTP alternative (via construction and operation of site-specific facilities) may result in long-term significant impacts for habitat loss, fragmentation of remaining habitats, and impacts on rare or endangered species or significant ecological areas.

Cultural Resources

Construction of projects included in the MTP may result in long-term significant impacts on or destruction of remaining cultural and historic resources, and may impact historic and cultural districts.

Aesthetics and Views

Implementation of any MTP alternative could result in new transportation facilities that could significantly affect scenic resources.

Utilities and Services

Facility construction could result in potential damage to utility lines, increased water needs, and increased solid waste generation if adequate mitigation measures are not implemented by local agencies. Increased congestion could cause increases in emergency vehicle response times.

Energy Consumption

The roadway facilities proposed to serve the level of transportation demand forecast under the MTP would result in accelerated consumption of non-renewable energy resources, but at a pace that is dramatically slowed by technological advances and increased fuel efficiency.

Hazardous Materials

Even with the vast improvements envisioned in MTP Supplement alternatives, congestion is expected to increase. Increased congestion is likely to contribute to an increase in the number of accidents, which--if they involve vehicles used to transport hazardous materials--could create potential significant impacts.

SIGNIFICANT IRREVERSIBLE CHANGES

The proposed MTP may result in irreversible or irretrievable commitments of several types of nonrenewable resources, as listed below. An irreversible commitment of a resource is one that cannot be changed once it occurs and cannot be recovered or reused.

Population, Housing, Land Use

Impacts forecasted for disruption and displacement of land uses and effects on sensitive land uses would be for the most part irreversible. In addition, land upon which transportation facilities are built cannot be used for other purposes, thereby creating an irretrievable commitment.

Mobility and Access

No irreversible impacts are anticipated.

Air Quality

Air quality effects represent steps towards or away from attainment of standards for various criteria pollutants and are not irreversible.

Noise

Noise effects can be changed through mitigation and are not irreversible.

Water Resources

Effects on water resource quality are reversible through mitigation. Increased runoff due to increases in impervious surfaces are for the most part irreversible.

Biological Resources

Effects on biological resources through loss of habitats or endangered species are irreversible.

Cultural Resources

Effects on cultural and historic resources are irreversible.

Aesthetics and Views

Effects on visual resources are irreversible.

Utilities and Services

Effects on utilities and services can be reversed through changes in utility and service system supply.

Energy Consumption

Increased vehicle use between 1995 and 2015 forecasted with any MTP alternative will result in increased consumption of non-renewable energy resources.

Hazardous Materials

Effects of hazardous materials transport can be prevented from occurring through changes in the use, transfer, storage and disposal of such materials. Once accidents happen, however, it is unclear whether the effects of hazardous materials are reversible.

POTENTIAL GROWTH-INDUCING IMPACTS

Potential growth-inducing impacts of implementation of the 1996 Metropolitan Transportation Plan are discussed in the *Population and Housing* section of Chapter Four: Potential Environmental Impacts.

CUMULATIVE IMPACTS

This Metropolitan Transportation Plan EIR is based on future land use forecasts for the region and analyzes proposed improvements to the regional transportation system. As such, the effects of the project are the same as the effects of cumulative development, and additional cumulative analysis is not necessary.

This programmatic EIR is consistent with the guidelines on phasing/tiering under CEQA, as it focuses on only those issues at the present conceptual level of environmental review. Future project-specific CEQA documents will be prepared that should incorporate this programmatic document by reference, and will focus on issues relevant to their site-specific activities.

CHAPTER SIX - PLAN OPTIONS

INTRODUCTION

The State CEQA Guidelines require that an EIR describe the range of reasonable alternatives to the project, or alternative locations for the project, which could feasibly attain the basic objectives of the project, and evaluate the relative merits of these alternatives. The Guidelines further require that the No Project alternative and its impacts be evaluated, and that discussion focus on alternatives capable of eliminating any significant adverse environmental effects of the project or of reducing them to less-than-significant levels. The impact analysis of the alternatives is presented at a more summary level of detail, relying upon the base of information presented in the individual setting and impact sections in Chapter 4, and only providing a comparison for the purpose of selection of an environmentally superior alternative. If an alternative is clearly superior to the proposed project, it is to be designated as such. If the alternative with the least environmental impact is the No Project alternative, then one of the other alternatives is to be designated as the environmentally superior alternative.

Overview

The primary impact analyses presented in Chapter 4 present an analysis of the Preferred Option for the 1996 MTP. Four additional options have been developed to ensure the reasonable range of alternatives to the Preferred Option.

Current Plan Option: This is SACOG's 1993 Metropolitan Transportation Plan developed in 1993 and amended in 1994. This option serves for comparison purposes, enabling us to see how much better or worse the new alternatives are, compared to the plan we already have. The current plan calls for ballot measures that would raise sales taxes in Sacramento, Sutter, and Yuba Counties, and for another ballot measure that would boost the statewide fuel tax by 20 cents per gallon, phased in at one cent per year for 20 years. This option has the full complement of light rail extensions, a full network of carpool lanes on all freeways leading to downtown Sacramento, and all of the Routes 70/99 corridor improvements in Sutter and Yuba Counties.

Current Plan Constrained Option ("No Project" Option): This option is based on SACOG's 1993 Metropolitan Transportation Plan, but without calling for any new revenue such as sales-tax or gas-tax ballot measures, as the 1993 MTP called for. The option was developed by removing the most expensive projects from the existing plan, to fit within the most conservative estimates of available funding over the next 20 years. The projects removed were light rail extensions (other than the two-mile extension from Butterfield Road to Mather Field Road already programmed), construction of carpool lanes on area freeways (other than the Highway 99 carpool lane segments already programmed), and a set of major highway improvements on Highways 70 and 99 in Sutter and Yuba Counties. These were the most costly projects in the current plan, and they would require more funding than is likely to be available over the next 20 years.

The Current Plan Constrained Option is considered the "no project" option because it represents the set of projects from the current plan that most likely would be implemented by 2015. The Current Plan Option contains many projects and programs that rely on new state and local funding programs that have not been implemented. Consequently, the Current Plan Constrained Option represents the set of reasonably foreseeable transportation improvements that will take place over the next 20 years.

Local Plans/New Projects Option: For this option, SACOG staff compiled lists of transportation projects that were developed locally through counties' congestion management programs, some local long-range transportation plans, and other sources. Additional projects were added upon request from project sponsors, who could be cities or counties, public transit operators, advocacy groups, or other entities. The additional projects included numerous bikeway projects, some improvements to freeway

interchanges or major arterial roads, and the extension of light rail service to southern Sacramento County. Of the three options being considered, this option most closely resembles the "current plan option."

Transportation Management/ Land Use Option: This option emphasizes efficiency techniques known as transportation demand management and system management (TDM/TSM), and strengthened land-use policies to channel post-2005 growth in Sacramento into certain zones that are near major transit corridors or infill areas. These strategies are emphasized instead of more traditional - and expensive - strategies of expanding the physical capacity of the transportation system.

Projects Included in Each Option: The following table summarizes the types of projects included in each plan option. Please note that the table includes only key types of projects to demonstrate major differences between options. Numerous other types of projects are not shown, including road maintenance projects, enhancement projects, double-tracking of light rail lines, bridge rehabilitation or replacement, and soundwall installation, among others. These types of projects are common to all options because of the high priority placed on maintenance and rehabilitation of the existing transportation system.

A list of all transportation programs and projects included in all plan options is available from SACOG upon request.

Table 16
Type of Projects Included in Each Plan Option

Type of Project	Plan Option ²					
	PO	CP	CPC	LP- NP	TM- LU	Core Set
Bicycle/Pedestrian	33 ¹	36	45	86	85	51
Carpool Lanes (new HOV lanes)	5	10	0	7	3	1
Interchange Projects (new or modified)	33	17	10	26	6	17
Rail Transit (new lines or extensions of existing lines, including light rail and commuter rail)	11	8	1	7	5	3
Transit Capital Acquisition (non-rail)	113	16	7	43	47	5
Local Road Projects (new roads or widenings)	177	55	61	131	87	125
TSM/TDM	32	1	7	19	31	10

¹ The number of bicycle and pedestrian projects in the Preferred Option appears to be substantially smaller than the number of projects in the Local Plans/New Projects option or in the Transportation Management/Land Use option; the reason is that a number of specific bicycle and pedestrian projects have been combined into a single categorical reference to the Sacramento City/County Bikeway Master Plan for inclusion in the Preferred Option. In addition, the bikeway master plans of all local jurisdictions have been incorporated by reference into the Preferred Option.

²PO Preferred Option
 CP Current Plan Option
 CPC Current Plan Constrained Option
 LP-NP Local Plans/New Projects Option
 TM-LU Transportation Management/Land Use Option
 Core Set Transportation Projects and Programs Common to all Plan Options; the transportation projects and programs shown in each of the five plan options are in addition to those in the core set.

In general, MTP options that call for a greater number of transportation improvements - particularly major new and improved roadways and transit facilities - are more likely to result in greater environmental impact because of the potential to displace more environmental and aesthetic resources. Table 17 summarizes the alternatives analysis for the 1996 MTP environmental document.

Table 17
Alternatives Analysis for the 1996 Metropolitan Transportation Plan
Environmental Impact Report

1996 MTP Environmental Analysis	Current Plan	Current Plan Constrained	Transportation Management/ Land Use	Local Plans/ New Projects	Preferred Option
Population and Housing		fewest number of projects			greatest number of projects
Potential relocation and displacement impacts are associated with the location of transportation facilities and their size in relation to areas where residents and businesses are located. Options that have a greater number of proposed transportation projects have a greater potential to result in relocation and displacement impacts.					
Land Use		fewest number of projects			greatest number of projects
Potential land use impacts are associated with the location of transportation facilities and their size relative to areas where sensitive land uses are located. Options that have a greater number of proposed transportation projects have a greater potential to result in impacts to sensitive land uses.					
Mobility and Access		performs worst per model analysis			performs best per model analyses
SACOG's transportation demand modeling analysis shows that the Current Plan Constrained option would result in the greatest congestion and single-occupancy vehicle usage, and would result in the worst transit usage and accessibility to jobs for both drivers and transit patrons. Although the Transportation Management and Land Use option would result in the least amount of vehicle miles of travel and would substantially increase the use of transit and non-motorized alternatives, the Preferred Option performed better in terms of congestion relief (mobility) and access to jobs. Table 18 shows the performance measures used to evaluate the MTP options and summarizes the results.					
Air Quality	performs worst per model analysis				performs best per model analyses
SACOG's air quality modeling analysis shows that the Preferred Option will result in the fewest emissions of all criteria pollutants, including hydrocarbons, nitrogen oxides, carbon monoxide, and particulate matter. The Current Plan option is expected to result in the greatest level of emissions among all the options. Table 19 shows the emissions measures used to evaluate the air quality impacts of the MTP options and summarizes the results.					
Noise	performs worst per model analysis		performs best per model analyses		
The noise analysis performed for the MTP options shows that the Transportation Management and Land Use option would result in the fewest number of roadway segments with significant increases in noise levels, while the Current Plan option would result in the greatest number of roadway segments with significant increases in noise levels.					

Table 17
Alternatives Analysis for the 1996 Metropolitan Transportation Plan
Environmental Impact Report

1996 MTP Environmental Analysis	Current Plan	Current Plan Constrained	Transportation Management/ Land Use	Local Plans/ New Projects	Preferred Option
Water Resources		fewest number of projects			greatest number of projects
Potential water resource impacts are associated with the location of transportation facilities and their size relative to areas where water resources are located. Options that have a greater number of proposed transportation projects have a greater potential to result in impacts to water resources.					
Biological Resources		fewer projects			greatest number of projects
Potential biological resource impacts are associated with the location of transportation facilities and their size relative to areas where biological resources are located. Options that have a greater number of proposed transportation projects have a greater potential to result in impacts to biological resources.					
Cultural and Historic Resources		fewer projects			greatest number of projects
Potential cultural and historic resource impacts are associated with the location of transportation facilities and their size relative to areas where cultural and historic resources are located. Options that have a greater number of proposed transportation projects have a greater potential to result in impacts to cultural and historic resources.					
Aesthetics and Views		fewer projects			greatest number of projects
Potential aesthetics and views impacts are associated with the location of transportation facilities and their size relative to areas where aesthetic resources are located. Options that have a greater number of proposed transportation projects have a greater potential to result in impacts to aesthetic resources.					
Utilities and Services	equal impacts expected				
In terms of potential impacts to utilities and services, no option is projected to create significantly better or worse impacts than the others.					
Energy Consumption	greatest VMT		least VMT		
The rate of transportation fuel use is related to the vehicle miles traveled on the regional transportation system. As the Transportation Management and Land Use option is projected to result in the least amount of VMT by 2015, it is expected to result in the least amount of fuel consumption as well. The Current Plan option is projected to result in the greatest VMT and therefore performs worst in terms of energy consumption.					
Hazardous Materials Transport	least congestion	greatest congestion			
A major objective of hazardous materials transporters and regulators is to avoid the transportation of hazardous materials on congested streets and highways to the degree possible. Consequently, fewer hazardous materials transport impacts are expected with options which - when implemented - would result in less congestion on the metropolitan transportation system. Therefore, the Current Plan option is expected to result in the least amount of hazardous materials transport impacts, and the Current Plan Constrained option is expected to result in the greatest impacts					

Table 17
Alternatives Analysis for the 1996 Metropolitan Transportation Plan
Environmental Impact Report

1996 MTP Environmental Analysis	Current Plan	Current Plan Constrained	Transportation Management/ Land Use	Local Plans/ New Projects	Preferred Option
Social and Economic Effects		fewer projects			greatest number of projects
		least accessibility improvements			greatest accessibility improvements
The Current Plan Constrained option - because it proposes fewer transportation projects that could result in potential social and economic impacts such as displacement and relocation of businesses and residents, thereby resulting in the fewest environmental impacts - would most likely result in fewer disproportionate environmental impacts on minority and low-income populations. However, the Preferred Option - because it would result in the greatest accessibility improvements - would most likely result in beneficial social and economic impacts for all socio-economic groups in the Sacramento metropolitan area, including minority and low-income populations.					

Table 18
Comparison of Plan Options - Transportation Demand Modeling Results

Performance Measures	1995 Base Year	Current Plan Constrained	Current Plan	Local Plans/ New Projects	Transportation Management/ Land Use	Preferred
Roadway Measures						
Daily Vehicle Trips	4,720,857	6,913,873	6,921,011	6,932,225	6,931,961	6,923,543
Daily Vehicle Miles	39,220,298	62,475,108	63,771,201	63,183,233	62,025,709	62,551,599
Daily Person Miles	47,069,508	75,106,425	76,794,417	76,069,052	74,689,472	75,241,735
Peak Period Person Miles of Travel on LOS "F" Roadways	439,331	2,500,625	2,050,236	2,114,291	2,289,981	2,094,044
Mode Choice Measures (Daily Person Trips)						
All Trips	7,062,326	10,697,036	10,694,303	10,694,586	10,706,220	10,703,183
Drive Alone Trips	3,476,233	5,259,114	5,253,942	5,254,129	5,232,417	5,254,573
Shared Ride Trips	2,909,899	4,460,259	4,468,052	4,467,787	4,462,035	4,464,110
Transit Trips	64,118	92,396	99,242	93,765	108,468	95,925
Non-Motorized Trips	612,076	885,267	873,067	878,905	903,300	888,575

Table 18
Comparison of Plan Options - Transportation Demand Modeling Results

Performance Measures	1995 Base Year	Current Plan Constrained	Current Plan	Local Plans/ New Projects	Transportation Management/ Land Use	Preferred
Accessibility Measures						
Average # of Jobs within a 20-Minute Drive Trip	246,861	238,993	249,276	252,325	249,485	253,404
Average # of Jobs within a 20-Minute Transit Trip	12,193	10,862	14,476	13,057	15,417	16,074
Emission Measures (tons/day)						
Nitrogen Oxides	99.12	53.10	54.88	54.48	53.06	52.92
Particulates	43.65	75.13	74.38	73.82	75.22	73.05
Reactive Organic Gases	71.24	17.09	16.91	16.82	17.12	16.71
Carbon Monoxide	657.39	288.39	291.64	290.11	287.97	286.11
Energy Consumption Measures						
Estimated Fuel Consumption (gallons/day)	1,589,153	2,313,893	2,361,896	2,340,120	2,297,248	2,316,726

Source: SACOG, April 1996, based on combined SACMET and Yuba/Sutter travel demand model outputs. Emissions calculated using DTIM2 software, with EMFAC7f emission rates, SACMET and Yuba/Sutter travel demand model vehicle activity forecasts, with SIP adjustments.

Table 19
Comparison of 1996 MTP Alternatives
To the Year 2015 Constrained Current Plan

Factor	Current Plan	Local Plans/ New Projects	Trans Man/ Land Use	Preferred Option
Number of Segments with Decreased Noise Levels:	40	44	61	82
Number of Segments with Significant Decreases:	2	2	7	3
Number of Roadways with No Change in Noise Levels:	69	73	78	45
Number of Segments with Increased Noise Levels:	91	82	56	69
Number of Segments with Significant Increases:	11	10	1	6

Source: Brown-Buntin Associates, April 1996.

Environmentally Superior Option

As shown in table 17 earlier in this section, the Current Plan Constrained, or “No Project,” option is identified as the environmentally superior option because it proposes the least amount of major transportation improvements that could result in significant environmental impacts. The CEQA Guidelines indicates that “if the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives” [CEQA Guidelines, Section 15126 (d)(2)]. Of the remaining options, the Transportation Management and Land Use option proposes the least amount of major new transportation projects - including new carpool lanes, interchange projects, new rail transit facilities, and new and widened roadway facilities - that could result in significant environmental effects. Therefore, this report identifies the Transportation Management and Land Use option as the environmentally superior alternative.

CHAPTER SEVEN - PREPARATION OF THE DRAFT EIR

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APPENDIX A - NOTICE OF PREPARATION & COMMENT LETTERS RECEIVED

In keeping with CEQA regulations, the following pages show the Notice of Preparation for this environmental impact report, along with letters of comment received on it.

NOTICE OF PREPARATION

1996 METROPOLITAN TRANSPORTATION PLAN ENVIRONMENTAL IMPACT REPORT

TO: ALL INTERESTED AGENCIES AND
PERSONS

FROM: SACRAMENTO AREA COUNCIL OF
GOVERNMENTS

3000 S STREET, SUITE 300

SACRAMENTO, CA 95816

(916) 457-2264

DATE: NOVEMBER 29, 1995

The Sacramento Area Council of Governments (SACOG) will be the Lead Agency in the preparation of an environmental impact report (EIR) for the 1996 Metropolitan Transportation Plan (MTP). SACOG needs to know your views as to the scope and content of the environmental information to include in the EIR.

This Notice of Preparation includes:

- A description of options to be evaluated for the 1996 Metropolitan Transportation Plan
- A map of the Sacramento metropolitan area, which is the study area for the 1996 MTP and EIR. The metropolitan area includes the counties of Sacramento, Sutter, Yolo, and Yuba, and western El Dorado and Placer Counties to the crestline of the Sierra Nevada.
- An outline for the draft EIR that identifies the environmental issues to be discussed in the document.

SACOG seeks your views on the following questions:

- Do you believe that there are potential environmental issues that SACOG hasn't already identified in the attached outline? If so, please identify these potential issues.
- Do you believe that SACOG plans to evaluate a reasonable range of alternatives? If not, which additional alternatives do you believe SACOG should evaluate as well?
- What types of mitigation measures do you think would help avoid or minimize potential environmental effects?

Please submit your written responses **no later than December 29, 1995** through any of the following methods:

By Mail	By Fax	Through the Bulletin Board Service	Through the Internet
Teri Sheets, Transportation Planner Sacramento Area Council of Governments 3000 S Street, Suite 300 Sacramento, CA 95816	(916) 457-3299	Dial into the BBS at (916) 457-0660, and leave a message for "Teri Sheets" in the Message Menu	tsheets@sacog.org

Please contact SACOG staff if you have any questions on this Notice of Preparation, the environmental review process in general, or the transportation planning process that is the subject of the EIR. You may call SACOG staff at **(916) 457-2264**, or send a message through the BBS or the Internet:

Notice of Preparation
Environmental Review Process

Teri Sheets

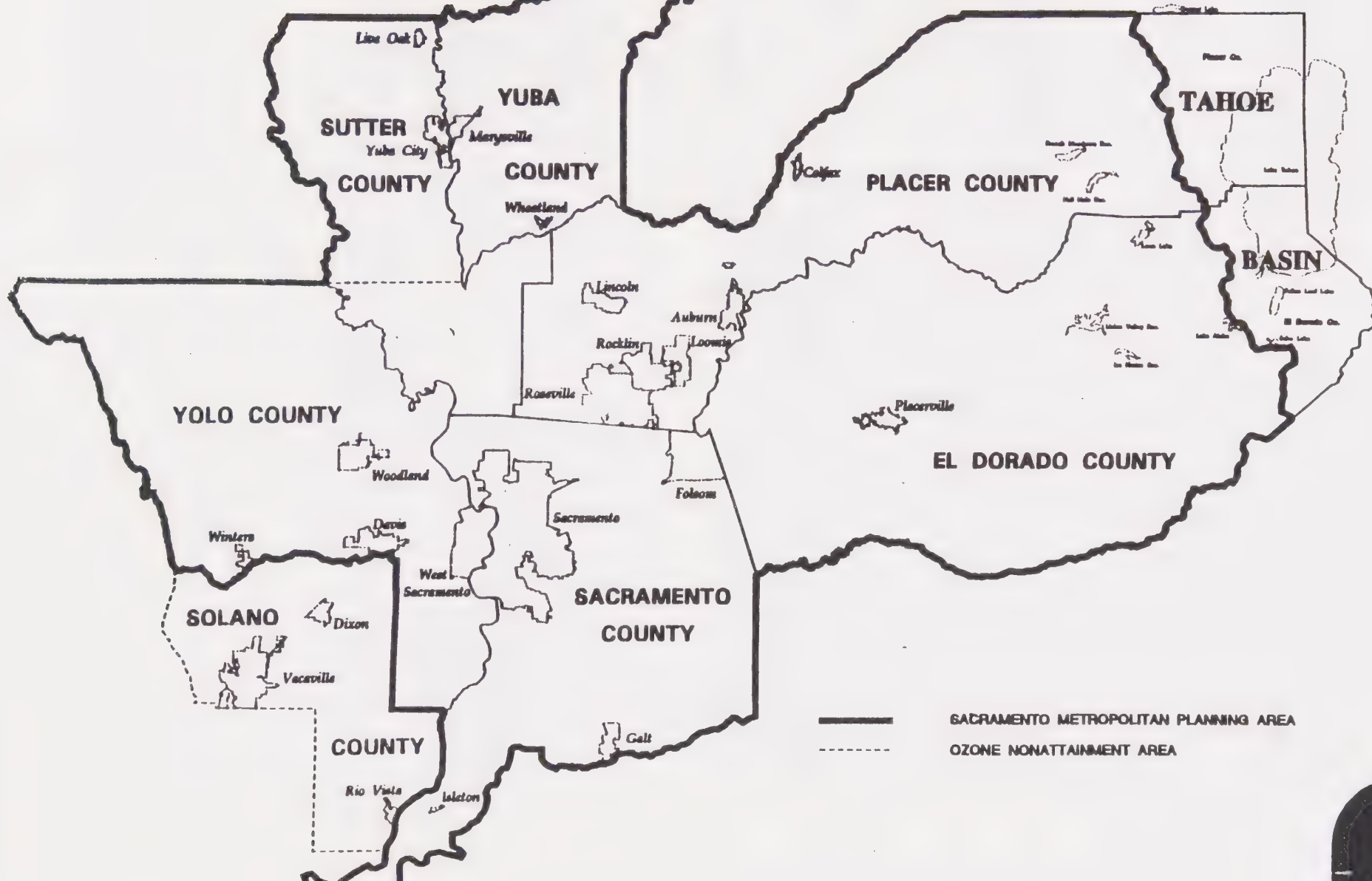
tsheets@sacog.org

Transportation Planning Process

John Greitzer

jgreitzer@sacog.org

SACRAMENTO METROPOLITAN PLANNING AREA



THE FOUR OPTIONS FOR THE 1996 METROPOLITAN TRANSPORTATION PLAN

transportation management / land use option -- This emphasizes efficiency techniques known as transportation demand management and system management (TDM/TSM), and strengthened land-use policies to channel post-2005 growth in Sacramento into certain zones that are near major transit corridors or infill areas. These strategies are emphasized instead of the more traditional -- and expensive -- strategies of expanding the physical capacity of the transportation system.

current plan constrained option -- This is based on SACOG's 1993-94 Metropolitan Transportation Plan, but without calling for any new revenue such as sales-tax or gas-tax ballot measures, as the 1993-94 Plan called for. This option was scaled back by removing the most expensive projects from the existing Plan, to fit within the most conservative estimates of how much funding we can expect over the next 20 years. The projects removed were light rail extensions (other than the 2-mile Mather Field Road extension already programmed), construction of carpool lanes on freeways (other than the Highway 99 carpool segment already programmed), and a set of major highway improvements to Routes 70 and 99 in the Marysville / Yuba City area. These were the most costly projects in the current plan, and they would require more funding than is likely to be available over the next 20 years.

local plans / new projects option -- This option compiled lists of transportation projects that were developed locally through counties' congestion management programs, some local long-range transportation plans, and other sources. Additional projects were added upon request from the project sponsors, who could be cities or counties, public transit operators, advocacy groups, or other entities. The additional projects included numerous bikeway projects, some improvements to freeway interchanges or major arterial roads, and the extension of light rail service to southern Sacramento County. Of the three new options being considered, this one most closely resembles the "current plan option", described below.

current plan option (same as the "No Project" option) -- This is SACOG's existing Metropolitan Transportation Plan, developed in 1993 and amended in 1994. This serves for comparison purposes, enabling us to see how much better or worse the new alternatives are, compared to the plan we've already got. The current plan calls for ballot measures that would raise sales taxes in Sacramento, Sutter, and Yuba Counties, and for another ballot measure that would boost the statewide fuel tax by 20 cents per gallon, phased in at one cent per year for 20 years. This option has a full complement of light rail extensions, a full network of carpool lanes on all freeways leading into downtown Sacramento, and all of the Routes 70 / 99 corridor improvements in Yuba and Sutter Counties.

A set of smaller, local transportation projects are common to all four of the options. We include this "core" set of local projects for practical reasons. SACOG's Metropolitan Transportation Plan includes more than 400 individual transportation projects over its 20-year planning horizon. To keep the options-building process manageable, we needed to concentrate on the larger strategies and projects. The core set of common projects was developed with the aid of the Regional Planning Partnership, an advisory committee to SACOG. The differences between options are in the larger, most significant (and usually, most expensive) transportation projects or strategies.

TYPES OF PROJECTS INCLUDED IN EACH MTP OPTION

Type of Project	Option			
	Current Plan	Current Plan Constrained	Local Plans / New Projects	Management / Land use
Bicycle / Pedestrian	84	84	126	126
Carpool Lane (New Lane Construction)	11	2	5	2
Interchange Projects (New or Modifications to Existing)	28	28	27	20
Rail Transit (New Lines or Extensions of Existing Lines)	10	1	5	2
Transit Capital Acquisition (Non-Rail)	14	3	37	40
Local Road Projects (New Roads or Widenings)	90	79	92	68
TSM / TDM	9	13	25	39

Notes:

Table shows only key types of projects, to demonstrate major differences between options. Numerous other types of projects are not shown. These include road maintenance projects, environmental enhancement projects, double-tracking of light rail lines, bridge rehab/repair, and soundwall installation, among others.

Figures for some project types may be off by one or two units; staff is reviewing. Overall balance of projects among the options will not change.

INITIAL STUDY FOR THE 1996 METROPOLITAN TRANSPORTATION PLAN

Normally, a lead agency in the preparation of the environmental document would first complete an Initial Study to determine whether an EIR or a Negative Declaration would be required for the project. Section 15063 of the State CEQA Guidelines indicates, however, that...

"If the Lead Agency can determine that an EIR will clearly be required for the project, an Initial Study is not required but may still be desirable."

Based on previous EIRs that SACOG has certified for its long-range transportation plan, and in light of the changes in environmental conditions that have occurred since the certification of these documents, SACOG staff has determined that the preparation of a new environmental impact report would be required. The SACOG Board of Directors has adopted new population and employment projections that will have an effect on the transportation, air quality, noise, and energy consumption analyses prepared for the Metropolitan Transportation Plan. In addition to achieving CEQA compliance, a complete update of the Environmental Impact Report for the Metropolitan Transportation Plan will also allow local agencies to prepare more focused environmental analyses on specific transportation improvements included in the long-range transportation plan.

Because standard initial study forms and checklists are much better suited for specific land use and transportation projects, SACOG staff has instead chosen to identify a number of environmental issues that will be addressed in the EIR and to outline the proposed analysis of these issues. This outline starts on page 6 of this Notice of Preparation. As indicated at the beginning of this Notice, SACOG wants to know if you believe that there are potential environmental issues that SACOG hasn't already identified in the outline. SACOG also needs to know what additional information you believe should be included in the EIR. SACOG staff will make every attempt to provide this information, or to explain why the requested information is not available or appropriate for this environmental analysis.

OUTLINE FOR THE EIR FOR THE 1996 METROPOLITAN TRANSPORTATION PLAN

I. INTRODUCTION

- A. Purpose of the EIR
- B. Legal Requirements
- C. Type of Environmental Document
- D. The Environmental Review Process to Date
- E. Organization of the Document
- F. Contact Person

II. SUMMARY

- A. Purpose of the MTP
- B. The Alternatives
- C. Areas of Controversy Known to SACOG
- D. Summary of Potential Impacts and Recommended Mitigation Measures

III. PROJECT DESCRIPTION

- A. Location
- B. Planning Background
- C. Description of the MTP and Alternatives

IV. POTENTIAL ENVIRONMENTAL IMPACTS

A. **Population and Housing**

1. Introduction
2. Environmental Setting
 - a. Population and employment projections
 - b. Jobs and housing concentrations
3. Potential Environmental Impacts
 - a. Potential displacement of residents or businesses
 - b. Potential for community disruption
4. Recommended Mitigation Measures

B. **Land Use**

1. Introduction
2. Environmental Setting
 - a. Existing land uses in the Sacramento metropolitan area
 - b. Leading growth areas
3. Potential Environmental Impacts
 - a. Potential for land use conflicts
 - b. Potential impacts to park lands
4. Recommended Mitigation Measures

C. **Mobility and Access**

1. Introduction

2. Environmental Setting

- a. Highway facilities and conditions
- b. Local road facilities and conditions
- c. Public transit facilities
- d. Bicycle and pedestrian facilities
- e. Passenger rail service
- f. Aviation
- g. Goods movement
- h. Existing conditions on the metropolitan transportation system

3. Potential Environmental Impacts - Region wide transportation analysis to show effects of transportation system improvements

4. Recommended Mitigation Measures

D. **Air Quality**

1. Introduction
2. Environmental Setting
 - a. Air pollutants and standards
 - b. Regulatory structure and responsibilities
 - c. Air pollution monitoring
 - d. Emission sources
3. Potential Environmental Impacts
Note: This analysis will make use of the Direct Travel Impact Model (DTIM) to analyze the projected level of emissions that may result from each alternative for the MTP.
4. Recommended Mitigation Measures

E. **Noise**

1. Introduction
2. Environmental Setting
 - a. Community noise scales
 - b. Major sources of ambient noise in the Sacramento metropolitan area
 - c. Existing noise levels on the metropolitan transportation system
3. Potential Environmental Impacts
Note: This analysis will make use of the FHWA Highway Traffic Noise Prediction Model to determine the potential noise contours that would result from implementation of each option.
4. Recommended Mitigation Measures

F. Water Resources

1. Introduction
2. Environmental Setting
 - a. Surface water quality and supply
 - b. Groundwater quality and supply
 - c. Storm water runoff and quality
3. Potential Environmental Impacts
 - a. Potential for increased storm water runoff
 - b. Potential for decreases in groundwater recharge
4. Recommended Mitigation Measures

G. Biological Resources

1. Introduction
2. Environmental Setting
 - a. Biological resource habitat
 - b. Rare/endangered species or habitats
 - c. Areas of ecological significance
 - d. Applicable policies and regulations
3. Potential Environmental Impacts
 - a. Potential for impacts to rare, endangered, or threatened species
 - b. Potential for impacts to habitat of special-status species
4. Recommended Mitigation Measures

H. Cultural and Historic Resources

1. Introduction
2. Environmental Setting
 - a. Regional cultural periods
 - b. Archeology
 - c. Registered landmarks
 - d. Local historic preservation activities
 - e. Applicable policies and regulations
3. Potential Environmental Impacts
 - a. Potential for impacts to known cultural and historic resources
 - b. Potential for impacts to unknown cultural and historic resources
4. Recommended Mitigation Measures

I. Aesthetics and Views

1. Introduction
2. Environmental Setting

- a. Significant visual resources
- b. Designated scenic highways (state and local)

3. Potential Environmental Impacts
 - a. Potential for impacts to state or local aesthetic resources
 - b. Potential for impacts to scenic viewsheds
4. Recommended Mitigation Measures

J. Utilities and Services

1. Introduction
2. Environmental Setting
 - a. Gas and electric services provided
 - b. Telephone services provided
 - c. Sewage disposal and treatment, location
 - d. Water services provided
 - e. Solid waste, location of land fills
 - f. Emergency services provided
 - g. Schools, location
3. Potential Environmental Impacts
 - a. Potential for disruptions to utilities and services
 - b. Potential for greater demand for services
4. Recommended Mitigation Measures

K. Energy Consumption and Dependence

1. Introduction
2. Environmental Setting
 - a. Vehicle fuel consumption
 - b. Light rail transit electrical energy consumption
3. Potential Environmental Impacts
 - a. Potential for unnecessary consumption of energy resources
 - b. Potential impacts on ability to deliver energy resources
4. Recommended Mitigation Measures

L. Hazardous Materials Transport

1. Introduction
2. Environmental Setting
 - a. Transport routes for hazardous materials
 - b. Response procedures for hazardous materials spills on the metropolitan transportation system
3. Potential Environmental Impacts
 - a. Potential impact on emergency response procedures

- b. Potential for exposure of transportation system users to hazardous materials

- 4. Recommended Mitigation Measures

M. Social and Economic Effects

- 1. Introduction
- 2. Environmental Setting
 - a. Economic development goals
 - b. Economic effects of congestion
- 3. Potential Environmental Impacts

Note: The EIR will include an analysis to determine if implementation of the 1996 MTP could disproportionately impact any socio-economic group in the Sacramento metropolitan area.
- 4. Recommended Mitigation Measures

V. SUMMARY OF IMPACTS AND THEIR DISPOSITION

A. Significant Irreversible Changes

B. Potential Growth-Inducing Impacts

C. Cumulative Impacts

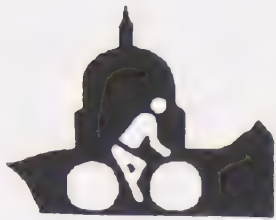
VI. ALTERNATIVES

VII. PREPARATION OF THE DRAFT EIR

VIII. BIBLIOGRAPHY AND REFERENCES

APPENDIX A: NOTICE OF PREPARATION AND COMMENT LETTERS RECEIVED

APPENDIX B: 1996 MTP GOALS, OBJECTIVES, AND POLICIES



December 29, 1995

Michael Hoffacker, Executive Director
Sacramento Area Council of Governments
3000 S Street, Suite 300
Sacramento, CA 95816-7056

RE: 1996 Metropolitan Transportation Plan EIR

The Sacramento Area Bicycle Advocates (SABA) wishes to respond to your November 29, 1995 request for comments on the proposed Environmental Impact Report (EIR) for the 1996 Metropolitan Transportation Plan (MTP).

- **Potential Environmental Issues**

The outline that the Sacramento Area Council of Governments (SACOG) proposes to use for the EIR appears to be complete. However, it is important that the EIR fully address the beneficial impacts of bicycle transportation in contrast to the adverse environmental impacts of motor vehicle transportation. In terms of mobility and access, bicycle transportation offers a low cost form of transportation for many segments of the population who do not have access to motor vehicles - youths less than 16 years of age, poor, or those with restricted drivers license. Mobility using a motor vehicle is often limited on freeways, major streets and local roads due to traffic congestion. Bicycle transportation offers opportunities to not only have mobility at times and locations of vehicular congestion but will provide relief of the traffic congestion if sufficient numbers use bicycle transportation. This potential environmental issue needs to be addressed in the MTP EIR.

The air quality section of the EIR is critical since the Sacramento region is non-attainment for ozone, carbon monoxide and PM10 particulate matter. These are all directly or indirectly caused by the existing motor vehicle transportation. Any changes to the existing motor vehicle transportation network and system that will increase the capacity will only exacerbate the efforts of the local, state and national air quality agencies to achieve healthy levels of air quality. Often, EIR's neglect to determine the beneficial impacts of bicycle transportation based on believes that it cannot be quantified. However, in the various funding cycles (CMAQ, STP and TEA) of the federal Intermodal Transportation Efficiency Act of 1991, bicycle projects have had to quantify the air quality impacts of the proposed projects. One suggestion would be to quantify the air quality impacts of implementation of all local bicycle plans (e.g., City/County 2010 Bikeway Master Plan) and/or aggregate the emission reductions that would occur if all the bicycle funding requests had been approved.

The environmental impact of the motor vehicle transportation on noise pollution is significant on most transportation arterials. Any changes to the MTP which would increase the capacity or highway speeds could further increase these adverse impacts. Bicycle transportation would not cause any noise pollution.

There is an adverse impact on the water resources due to the motor vehicle transportation system. Increased paving increases storm water runoff. Similarly, motor vehicle oil leaks cause impacts on the storm water quality. It should be noted in the EIR that bicycle transportation has minimal impacts on the water resources.

The motor vehicle transportation system is dependent upon energy resources. The motor vehicles account for most of the energy consumption in California. Past federal requirements on the CAFE standards have helped to improve the vehicle gas mileage. However, there are continued attacks by the automobile industry and the Republican/business forces to scale back any CAFE standards. Improved vehicular gasoline mileage is offset in California and particularly in the Sacramento region by increasing vehicular trip lengths and trip numbers. The leap frog, poorly designed development will continue to exacerbate this trend. The refusal of Placer and El Dorado Counties to permit SACOG to fully consider alternative land use options is not a good sign that the EIR will fully address this problem. Bicycle transportation systems are not highly dependent upon consumption of vast amounts of energy resources and in fact will help reduce the growing reliance upon fossil fuels.

● Alternatives

The four options that are being considered for the 1996 MTP appear on the surface to provide for a good range of alternatives to provide the public and the decision makers with sufficient information. However, the transportation management/land use option is flawed. Because of political constraints placed upon the SACOG staff by the Placer and El Dorado Counties, there will be no consideration or evaluation of alternative land use options for these two counties. Considering the trend that these two counties are continuing to become "bedroom communities" with major transportation commute patterns to the major Sacramento metropolitan area, this is a serious defect in the proposed EIR and the 1996 MTP. Unless this is addressed satisfactorily, these two documents will be flawed.

Both the transportation management/land use option and the local plans/new project options should include ALL bicycle projects that are considered in each of the member jurisdiction's bicycle master plans.

- **Mitigation Measures**

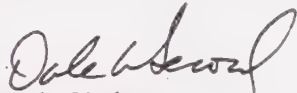
Bicycle transportation should be considered as a mitigation measure for most of the adverse impacts addressed in the EIR - mobility and access, air quality, noise, water resources, and energy consumption and dependence. Bicycle transportation offers a low cost mitigation measure that should be pursued to minimize the adverse impacts caused by the motor vehicle transportation system.

If the 1996 MTP continues to rely upon expanded motor vehicle transportation system, the EIR should make it clear that significant adverse irreversible changes will result. Similarly, the potential growth inducing impacts would be real and significant.

An improved bicycle transportation system will mitigate the adverse impacts of the 1996 MTP and provide for more liveable communities. This will require a commitment upon the decision makers of SACOG and subsequently with the public officials and staffs of the various public agencies in the funding and implementation of transportation projects.

We look forward to working with SACOG and others in the Sacramento region to improve the overall transportation system in concert with a health environment. If you have questions, please call me at (916) 427-7095.

Sincerely,



Dale A. Secord, Chair

cc: SACOG Board Chair
Teri Sheets, SACOG



ENVIRONMENTAL COUNCIL OF SACRAMENTO

December 29, 1995

Ms. Teri Sheets, Transportation Planner
 Sacramento Area Council of Governments
 3000 S Street, Suite 300
 Sacramento, CA 95816

RE: 1996 Metropolitan Transportation Plan (MTP) Environmental Impact Plan (EIR)
 Notice of Preparation (NOP)

Dear Ms. Sheets:

The Environmental Council of Sacramento (ECOS) has the following comments on the 1996 MTP EIR NOP dated November 29, 1995 which we will address as outlined by the three questions given in the NOP.

Question 1: Has SACOG identified all the potential environmental issues in the NOP outline?

Section M, Social and Economic Effects. SACOG needs to evaluate the economic effect of transportation from the inability for all those who are economically disadvantaged and cannot afford or those who do not or cannot drive an automobile to their employment. There are economically disadvantaged areas within Sacramento which are caught in a "Catch-22". An individual may obtain employment but cannot get from their residence to their employment without an automobile. If they do not own an automobile, they do not work. Our transportation system must support those who do not have the choices available to them so they can choose to support and not burden our economy.

Section V, Summary of Impacts and Their Disposition, C Cumulative Impacts. SACOG needs to develop a methodology which fully evaluates the cumulative impacts of the "Negative Declaration" projects which are missed by or circumvent the EIR process. Our concern is that large projects are broken down to smaller ones, therefore not triggering and circumventing the EIR process. See additional comments under Question 3.



★ AMERICAN LUNG ASSOCIATION OF SACRAMENTO ★ EMIGRANT TRAILS ★ CALIFORNIA NATIVE PLANT SOCIETY ★
 ★ CALIFORNIANS AGAINST WASTE ★ LEAGUE OF WOMEN VOTERS ★ LIGHT RAIL AND TRANSIT ADVOCATES ★
 ★ NATOMAS COMMUNITY ASSOCIATION ★ SACRAMENTO AREA BICYCLE ADVOCATES ★ SACRAMENTO AUDUBON SOCIETY ★
 ★ SACRAMENTO HOUSING ALLIANCE ★ SACRAMENTO LOCAL CONSERVATION CORPS ★ SACRAMENTO NATURAL POODS COOP ★
 ★ SACRAMENTO RIVER PRESERVATION TRUST ★ SACRAMENTO OLD CITY ASSOCIATION ★ SAVE THE AMERICAN RIVER COALITION ★ SIERRA CLUB ★

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909 12TH STREET, SACRAMENTO, CALIFORNIA 95814

Teri Sheets, Transportation Planner

December 29, 1995

Question 2: Has SACOG presented a reasonable range of alternatives?

ECOS wants to recognize SACOG's development of the transportation management/land use option. With Sacramento's upcoming growth, new and innovated approaches to transportation planning must be developed in conjunction with land use planning. The alternatives presented have been limited by economics but we hope not driven by economics. The Leaders of our community must start taking the more difficult road of creating and walking a vision of a Sacramento with a world class transportation system, such as found in Portland, Oregon. This will take team work between the various agencies and community leaders. Our community leaders must start educating our community now on the need of developing this type of transportation system, instead of reacting to economics. Funding for anything will not be available unless the community understands the importance of it. A world class transportation system will cost money, but for us to have the quality of life which we deserve and want we need this infrastructure.

Question 3: What types of mitigation measures do you think would help avoid or minimize potential environmental effects?

Classic congestion management has approached problems through providing more space for the automobile (road widening). ECOS wants congestion management through the removal of the gasoline fueled automobile from the road. Currently, there is insufficient information in the NOP to evaluate the types of mitigation measures to be used, but ECOS would like to see the use of alternative fuels and transportation where ever possible. Again, this will take team work between agencies and community leaders to develop an efficient and effective transportation system for Sacramento.

Thank you for giving us this opportunity to comment on this NOP. If you have any questions, please contact Linda Whitney at (916) 263-2677 or me at (916) 327-5631.

Sincerely,



Kathleen Mead, Chair

Air and Transportation Committee
Environmental Council of Sacramento

ARDEN-SIERRA PLANNING COALITION

Coalition of residents of Sierra Oaks Vista, Sierra Oaks, Arden Manor, Arden Oaks, Arden Park, Campus Commons, Lake Wilhaggin, and La Riviera.

(916) 482-5211 phone/fax

February 15, 1996

John Greitzer
Associate Planner
Sacramento Area Council of Governments
3000 "S" Street, Suite 300,
Sacramento, CA 95816-7056

Dear Mr. Greitzer:

The Arden-Sierra Planning Coalition has reviewed the January 1996 Metropolitan Transportation Plan and is concerned about road widening projects, particularly on Watt Avenue, and the lack of adequate transportation planning for the Arden Arcade/Carmichael area.

We request that the Metropolitan Transportation Plan address transportation planning for Arden Arcade and the Carmichael area. With traffic through this area projected to increase by 40% at build out of the general plan, the road widening projects will still mean LOS F during commute hours and the community will suffer from increased urban blight, air and noise pollution, more cars and congestion.

Consideration should be given to concentration on planning for commute hours and diverting the millions in funds for Watt Avenue road widenings to implementation of General Plan policy CI 10 H and the recommendations sited in the Kittelson and Associates analysis in the 1995 EIR on the Watt Avenue/Fair Oaks Boulevard Intersection Modification.

Policy CI 10 H in the 1993 General Plan states: "Explore the feasibility of a transit-only crossing of the American River, amend the Transportation Plan as appropriate and develop funding mechanisms for facility construction as necessary."

The recommendations in the Kittelson & Associates analysis are:
"At least three elements will be needed to meet future travel demand across the river:


- . One or more new crossings of the American River
- . Increased transit and carpool usage
- . A 'spreading' of peak travel demand"

In addition, we urge that the air quality analysis include a study of toxics from mobil sources. Using the figures for the Sunrise Douglas monitoring station, which has approximately the same daily traffic count (115,000) as Watt Avenue and Fair Oaks Boulevard, it appears that toxic levels could be as high as 80 times the limits in Proposition 65!

It is our understanding that the \$3 million dollar project SAC15730 is to be removed from the project list. We support that deletion.

We appreciate the opportunity to comment on the Metropolitan Transportation Plan. If you have any questions please call me at 444-1000.

Sincerely,



Michael Gualco,
Chairman

cc: Board of Supervisors
Norm Covell, Sacramento Metropolitan Air Quality Management
District
Linda Whitney, Tom Whitney, Environmental Council of
Sacramento
Jane Hagedorn, Lung Association
John Kennedy, U.S.EPA Region IX
Bill Loscutoff, California Air Resources Board
Terry McGuire, California Air Resources Board



COUNTY OF SACRAMENTO

PUBLIC WORKS AGENCY

COUNTY ADMINISTRATION BUILDING
827 SEVENTH STREET, ROOM 304
SACRAMENTO, CA 95814

Phone: (916) 440-6581 Fax: (916) 440-7100

DOUGLAS M. FRALEIGH, Administrator
WARREN H. HARADA, Director
Public Works Administration
ROBERT F. SHANKS, Director
District Engineering
TERRY T. TICE, Director
County Engineering

JAN - 2 1996

December 28, 1995

Ms. Teri Sheets, Transportation Planner
Sacramento Area Council of Governments
3000 S Street, Suite 300
Sacramento, CA 95816

**SUBJECT: NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT
REPORT FOR THE 1996 METROPOLITAN TRANSPORTATION PLAN**

Dear Ms. Sheets:

In response to your request for comments regarding the above cited Notice of Preparation, please see the attached memo from Steve Hetland of the Transportation Division of the County of Sacramento.

If you have any questions regarding this response, please call Bob Davison at 440-6525.

Sincerely,

A handwritten signature in cursive script, reading "Douglas M. Fraleigh".

Douglas M. Fraleigh
Administrator

DMF:BSG:mg:
Attachment

cc:	Terry Tice	Keith DeVore	Pat Groff	John Boehm
	Warren Harada	Tom Zlotkowski	Donna Dean	Steve Pedretti
	Robert Shanks	Cheryl Creson	Randy Foust	

COUNTY OF SACRAMENTO

Inter-Agency Correspondence

RECEIVED
DEC 26 1995
ADMINISTRATIVE SERVICES
PUBLIC WORKS AGENCY

December 21, 1995

To: Bob Davison
Public Infrastructure Planning and Financing Section

From: Steve Hetland
Transportation Division

Subject: **NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT
REPORT FOR THE 1996 METROPOLITAN TRANSPORTATION PLAN**

The Transportation Division has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the above referenced project. The preparation of the 1996 Metropolitan Transportation Plan has been an ongoing process, and we have been working directly with SACOG. We will comment directly to SACOG during the preparation of the Environmental document.

Please call me at 440-5966, if you have any questions.

HS

APPENDIX B - GOALS AND OBJECTIVES

The following pages include the Goals and Objectives for the 1996 Draft Metropolitan Transportation Plan.

The Metropolitan Transportation Plan has the seven goals shown below, adopted in 1993. When we developed four long-range options for analysis, we checked the options against these goals to ensure that each option addressed one or more of the goals. We also used these goals in conducting our policy analysis of the options . . .

System Preservation Goal -- to preserve the existing transportation infrastructure as a means of protecting our transportation investments and maintaining an effective system.

Land Use / Mobility Goal -- to meet the mobility needs of people of all incomes, ages, and physical conditions; and in the region's urban areas, to bring about changes in existing and future urban form that will facilitate the development of the most efficient and effective transportation system possible.

Air Quality Goal -- to directly support the achievement of state and federal air-quality standards

Safety Goal -- to provide the safest possible transportation system for all.

Environmental Goal -- to provide for transportation services, facilities, and vehicles that cause the least amount of environmental damage and yield environmental benefits wherever feasible.

Economic Goal -- to create the most economical transportation system and to make the most efficient use of transportation revenues in providing services and facilities, optimizing the movement of people, goods, and information.

Organizational Goal -- to foster more coordination and cooperation between agencies to avoid interagency conflict and assure the most effective use of transportation resources.

☛ *Note: SACOG began this plan revision process in early 1995. At that time, the goals shown on the previous page, and a set of supporting objectives and policies, were little more than a year old, having been adopted by the SACOG Board in 1993. Therefore, they were not revisited for this update of the plan. The following pages show the goals and each of the supporting objectives as adopted in 1993. For brevity's sake we have not included a long list of individual policies that support each objective; these are shown in Appendix H.*

Goals And Objectives

System Preservation Goal: To preserve existing transportation facilities as a means of protecting our transportation investments and maintaining an effective system.

Objective: Promote an adequate level of maintenance and preservation of our existing transportation facilities.

Land Use / Mobility Goal: To meet the mobility needs of people of all incomes, ages, and physical conditions; and in the region's urban areas, to bring about changes in existing and urban form that will facilitate the development of the most efficient and effective transportation system possible.

Objectives: Meet the transportation needs of everyone, accommodating people of all physical abilities, ages, and economic situations.

Promote the development of local land use policies that result in more efficient use of the regional transportation system, to the extent desired by local communities.

Provide adequate transportation facilities and services to areas of existing and planned higher-density, mixed-use development.

Meet the transportation needs of all parts of SACOG's planning region.

Maximize the efficiency of the existing transportation system by improving system operation and minimizing vehicle demand.

Provide adequate highway and transit capacity connecting different urbanized areas within the region.

Create a shared vision among SACOG jurisdictions on growth and development in the region, leading to a substantial and effective agreement on land-use patterns and the region's urban form.

Achieve coordination among local general plans while maintaining diversity of individual jurisdictions.

Address the long-distance, inter-regional trips that contribute to congestion on the transportation system.

Develop a public transportation system that is complete and comprehensive and provides at least an acceptable minimum level of mobility throughout the region.

Develop an adequate bicycle component in the region's transportation system.

Air Quality Goal: To reduce mobile-source emissions to directly support the achievement of state and federal air-quality goals.

Objectives: Attain mobile-source performance standards of the California Clean Air Act by 1999 as required by the Act.

Ensure consistency between the Metropolitan Transportation Plan and current efforts to update the Regional Air Quality Plan developed for the Sacramento Air Quality Maintenance Area under the federal Clean Air Act.

Environmental Goal: To provide for transportation services, facilities, and vehicles that cause the least amount of environmental damage and yield environmental benefits wherever feasible.

Objectives: Mitigate environmental impacts of transportation system.

Minimize energy consumption.

Safety Goal: To provide the safest possible transportation system for all.

Objectives: Provide a safer transportation system.

Promote the safer use of the transportation system.

Economic Goal: To create the most economical transportation system; and to make the most efficient use of funding in providing services and facilities that optimize the movement of people and goods, for maximum economic benefit to the region.

Objectives: Bring sufficient transportation funding into the region, and use the funds in the most cost-effective manner.

Contribute to the economic vitality of the region.

Organizational Goal: To foster interagency coordination and cooperation to avoid interagency conflict and assure the most effective use of transportation resources.

Objectives: Serve as a forum for local agencies to work together to develop and achieve common goals.

APPENDIX C - LIST OF TRANSPORTATION PROJECTS

The following pages include the complete list of projects in the Preferred Option for the 1996 Metropolitan Transportation Plan. The complete list of all projects included in all MTP options is available from SACOG upon request.

Project List, Draft Metropolitan Transportation Plan

SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
Sacramento County Jurisdictions						
City Of Folsom						
SAC17100	Bicycle/Pedestrian	CITY PARK-RAINBOW BR.	HISTORIC CANAL BIKEWAY	1996	\$160	\$160
SAC17080	Bicycle/Pedestrian	OLD FOLSOM TRUSS BRIDGE	RECONSTRUCT HISTORIC WALKER BRIDGE	1998	\$1,100	\$1,167
SAC17260	Bicycle/Pedestrian	VARIOUS STREETS	CLASS II BIKE-LANE SIGNING AND STRIPING ON VARIOUS STREETS	1999	\$25	\$27
SAC17090	Bicycle/Pedestrian	GREENBACK LANE	BIKEWAY FROM GREENBACK LN TO AMERICAN RIVER PKWY BIKE TRAIL	2000	\$200	\$225
SAC17400	Bicycle/Pedestrian	HUMBUG-WILLOW REEK PKWY	HUMBUG-WILLOW CREEK PARKWAY BICYCLE PROJECT	2000	\$3,780	\$4,256
SAC16660	Bicycle/Pedestrian	AMERICAN RIVER BIKE TRAIL	SOUTH LAKE NATOMA BIKE TRAIL (COMPLETION)	2006	\$1,200	\$1,613
SAC17320	Bicycle/Pedestrian	NATOMA ST & OAK AVE	POWER LINE EASEMENTS BIKEWAY	2006	\$810	\$1,089
SAC16170	Bridge New	FOLSOM BLVD	NEW 4-LANE BRIDGE OVER THE AMERICAN RIVER AT LAKE NATOMA	1998	\$49,700	\$52,732
SAC18390	Interchange Modify	ROUTE 50	REBUILD INTERCHANGE AT EAST BIDWELL / SCOTT ROAD	1997	\$11,500	\$11,845
SAC16240	Other	HISTORIC FOLSOM	FOLSOM RAILROAD BLOCK RESTORATION (FIRST PHASE)	1996	\$497	\$497
SAC18100	Plan/Study	NEGRO BAR BRIDGE SITE	ENVIRONMENTAL MITIGATION WORK FOR NEW AMERICAN RIVER BRIDGE	1998	\$2,300	\$2,440
SAC18020	Rail New Line	SPRR CORRIDOR	RAIL SERVICE FROM IRON POINT TO PLANNED SUNRISE LIGHT-RAIL STOP	2000	\$20,000	\$22,520
SAC18025	Rail New Line	SPRR CORRIDOR	RAIL SERVICE FROM DOWNTOWN FOLSOM TO IRON POINT	2006	\$5,900	\$8,413
SAC16180	Road Widen	FOLSOM BLVD	WIDEN FROM 2 TO 4 LANES FROM NATOMA ST TO BLUE RAVINE RD	1998	\$750	\$796
SAC16190	Road Widen	FOLSOM- AUBURN ROAD	WIDEN FROM 2 TO 4 LANES FROM FOLSOM DAM ROAD TO PLACER CO LINE	2000	\$1,200	\$1,351
SAC16680	TSM/TDM	RILEY STREET	CONSTRUCT/MODIFY/SIGNAL INTERCONNECT FROM RAINBOW BRIDGE TO SUTTER ST	1996	\$1,200	\$1,200
			City Of Folsom Total		\$100,322	\$110,332
City of Galt						
SAC17480	Bicycle/Pedestrian	A STREET	A STREET SCHOOL LINKAGE BIKEWAY	2000	\$16	\$17
SAC17160	Bicycle/Pedestrian	C STREET	C STREET SCHOOL/SHOPPING/EMPLOYMENT LINKAGE BIKEWAY	2006	\$4	\$5
SAC17170	Bicycle/Pedestrian	CARILLION BOULEVARD	CARILLION BOULEVARD BIKEWAY CORRIDOR	2006	\$4	\$5
SAC17500	Bicycle/Pedestrian	ORR ROAD/ELMER AVENUE	ORR ROAD/ELM AVENUE EMPLOYMENT LINKAGE BIKEWAY	2006	\$128	\$173
SAC17490	Bicycle/Pedestrian	4th STREET	4TH STREET BIKEWAY TRAIL CONNECTOR	2015	\$14	\$24
SAC17510	Bicycle/Pedestrian	WALNUT AVENUE	WALNUT AVENUE BIKEWAY CORRIDOR	2015	\$17	\$30
SAC17520	Safety	LINCOLN WAY	RECONSTRUCT FROM WENDY HOPE DR TO SOUTHDAL CT. ADD MEDIAN & LIGHTING	1996	\$7,000	\$7,000
SAC19750	Safety	LINCOLN WAY	RECONSTRUCT FROM SOUTHDAL TO SACRAMENTO COUNTY LINE	2000	\$3,000	\$3,378
SAC19760	Safety	LINCOLN WAY	RECONSTRUCT FROM WENDY HOPE DR TO TWIN CITIES RD	2004	\$3,000	\$3,801
			City Of Galt Total		\$13,182	\$14,433
Sacramento Regional Transit District						
VARIOUS	Bicycle/Pedestrian	GENERAL	BICYCLE CARRIER PURCHASES, BIKE LOCKER EXPANSION, 1996 TO 2015	1996-2015	\$650	\$914
REG16110	Plan/Study	FOLSOM CORRIDOR	FOLSOM CORRIDOR ENVIRONMENTAL ASSESSMENT	1997	\$100	\$103

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
REG15440	Rail Double Track	FOLSOM CORRIDOR	STARFIRE TO BUTTERFIELD DOUBLE-TRACKING & 2ND PLATFORM AT TIBER	1996	\$6,250	\$6,250
REG15110	Rail Double Track	FOLSOM CORRIDOR	65TH ST TO WATT DOUBLE-TRACKING; MOVE PIPELINE FROM STOCKTON BLVD TO 59TH	1997	\$9,600	\$9,888
REG15570	Rail Double Track	NORTHEAST CORRIDOR	ROYAL OAKS TO SWANSTON DOUBLE-TRACKING	2010	\$6,900	\$10,440
REG15038	Rail New Line	FOLSOM CORRIDOR	BUTTERFIELD TO MATHER FIELD ROAD	1996	\$34,000	\$34,000
REG15033	Rail New Line	FOLSOM CORRIDOR	BUILD LIGHT-RAIL EXTENSION FROM BUTTERFIELD TO MATHER FIELD RD	1998	\$3,604	\$3,824
REG15860	Rail New Line	FOLSOM CORRIDOR	BUILD LIGHT-RAIL EXTENSION FROM MATHER FIELD RD TO SUNRISE BLVD.	2000	\$85,000	\$95,710
REG15052	Rail New Line	SOUTH CORRIDOR	BUILD NEW SOUTH LIGHT-RAIL LINE FROM DOWNTOWN SAC TO MEADOWVIEW RD	2001	\$185,000	\$202,205
REG15610	Rail New Line	NATOMAS CORRIDOR	BUILD INTERIM EXTENSION FROM 7TH/8TH AND K TO AMTRAK DEPOT AT 5TH AND H ST	1999	\$16,000	\$16,000
REG15053	Rail New Line	SOUTH CORRIDOR	BUILD NEW SOUTH LIGHT-RAIL LINE FROM MEADOWVIEW ROAD TO CALVINE/AUBERRY	2007	\$200,000	\$276,800
REG15611	Rail New Line	NATOMAS CORRIDOR	BUILD PHASE II EXTENSION FROM AMTRAK TO NEW INTERMODAL STATION AT 7TH & B ST	2010	\$10,000	\$13,840
REG15430	Rail New Station	FOLSOM CORRIDOR	MILLS STATION PROJECT: HISTORIC RESTORATION FOR MATHER FIELD RD LRT STATION	1996	\$880	\$880
REG15034	Right-of-Way	FOLSOM CORRIDOR	BUY RIGHT OF WAY FOR LRT EXTENSION FROM MATHER FIELD RD TO HAZEL AVE	1996	\$3,464	\$3,464
REG15035	Right-of-Way	FOLSOM CORRIDOR	BUY RIGHT OF WAY FOR LRT FROM HAZEL AVE TO EL DORADO COUNTY, EXCL. FOLSOM	1997	\$200	\$206
REG15054	Right-of-Way	SOUTH CORRIDOR	SOUTH CORRIDOR FINAL DESIGN	1997	\$14,000	\$14,420
REG15620	Transit Capital	GENERAL	SP UNDERPASS RECONSTRUCTION AT 12TH ST, PEDESTRIAN SAFETY IMPROVEMENTS	1996	\$150	\$150
REG15640	Transit Capital	GENERAL	POWER INN GRADE SEPARATION - BUILD BRIDGE FOR LRT AND PEDESTRIAN WAY	1996	\$4,000	\$4,000
REG15251	Transit Capital	GENERAL	ADD'L LRT VEHICLE ACQUISITION FOR SOUTH LINE, FOR 10 MINUTE FREQUENCIES	1997	\$17,000	\$17,510
REG15400	Transit Capital	GENERAL	ADA IMPROVEMENTS OF FACILITIES AND VEHICLES, 1996-2005	2005	\$1,000	\$1,000
REG15401	Transit Capital	GENERAL	ADA IMPROVEMENTS OF FACILITIES AND VEHICLES, 2005 TO 2015	1997	\$1,000	\$1,000
REG15990	Transit Capital	GENERAL	GRADE CROSSING/PEDESTRIAN IMPROVEMENT	1997	\$150	\$155
REG15302	Transit Capital	GENERAL	CNG BUS PURCHASE FOR FLEET REPLACEMENT AND EXPANSION 1996-2005	2005	\$50,009	\$60,959
REG15303	Transit Capital	GENERAL	CNG BUS PURCHASE FOR FLEET EXPANSION AND REPLACEMENT 2006-2015	2015	\$45,000	\$75,658
REG15890	Transit Capital	GENERAL	PARATRANSIT VEHICLE REPLACEMENT OR REHAB, 1996-2005	2005	\$14,000	\$14,000
REG15891	Transit Capital	GENERAL	PARATRANSIT VEHICLE REPLACEMENT OR REHAB, 2006-2015	2015	\$14,000	\$14,000
REG15900	Transit Capital	GENERAL	BUILD OFF-STREET BUS TRANSFER FACILITIES, PARK & RIDE LOTS, RELATED FACILITIES	2007	\$4,300	\$5,951
REG15950	Transit Capital	NORTHEAST CORRIDOR	COMMUTER RAIL STATION AT ANTELOPE ROAD	2007	\$1,000	\$1,384
REG15940	Transit Capital	GENERAL	ITS AND DEMAND RESPONSIVE COMMUNICATIONS SYSTEM FROM 2006 TO 2015	2015	\$1,500	\$1,500
VARIOUS	Transit Capital	GENERAL	VEHICLE SECURITY, SUBSTATIONS, OFFICE/ADMIN, MAINTENANCE FACILITIES, OTHER	1996-2015	\$108,997	\$125,885
REG15470	Transit Capital	PARATRANSIT	UPGRADE DEMAND-RESPONSE COMMUNICATIONS SYSTEM FOR TRIP SCHEDULING	1996	\$500	\$500
REG15590	Transit Capital	RT'S CNG FUELING FACILITY	CNG FUELING FACILITY EXPANSION PROJECT	1996	\$1,500	\$1,500
REG15510	Transit Capital	DOWNTOWN LRT LINE	AUTOMATIC BLOCKING SYSTEM - BEE BRIDGE	1997	\$315	\$324
REG15520	Transit Capital	PARATRANSIT INC	BUY 10 BACK-UP SMALL BUSES AND 10 MOBILE RADIOS	1997	\$550	\$567
REG15600	Transit Capital	29TH ST LIGHT RAIL STATION	BUILD TRANSIT CENTER AT 29TH STREET LIGHT RAIL STATION	2015	\$750	\$1,316
REG15670	TSM/TDM	65TH ST LIGHT RAIL STATION	BUILD 65TH STREET PARK-AND-RIDE LOT WITH 70-80 PARKING STALLS	1996	\$300	\$300
REG15660	TSM/TDM	GENERAL	BUILD PEDESTRIAN CROSSING AND BUS/LRT TRANSFER SITE AT SWANSTON STATION	1997	\$1,302	\$1,302

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
			Regional Transit Total		\$842,971	\$1,017,904
City Of Sacramento						
SAC16270	Bicycle/Pedestrian	I-5/K STREET UNDERPASS	I-5/K STREET PEDESTRIAN TUNNEL IMPROVEMENTS	1996	\$451	\$451
SAC16630	Bicycle/Pedestrian	20TH STREET BIKE TRAIL	BUILD 20TH STREET CLASS I BIKE TRAIL	1996	\$500	\$500
SAC17630	Bicycle/Pedestrian	SAC RIVER PKWY BIKE TRAIL	BUILD CLASS I BIKE TRAIL ALONG SAC RIVER LEVEE (PHASE 1)	1996	\$400	\$400
SAC17640	Bicycle/Pedestrian	20TH STREET BIKE TRAIL	BUILD CLASS I BIKE TRAIL FROM SAC NORTHERN BIKE TRAIL TO E STREET.	1996	\$500	\$500
SAC17680	Bicycle/Pedestrian	POCKET CANAL BIKE TRAIL	BUILD CLASS I BIKE TRAIL (PHASE 4) S. SIDE OF POCKET CANAL, BRIDGES AT 2 PARKS	1996	\$420	\$420
SAC17770	Bicycle/Pedestrian	SAC RIVER PKWY BIKE TRAIL	BUILD CLASS I BIKE TRAIL (PHASE 2) ON RIVER LEVEE FROM R STREET TO MILLER PARK	1996	\$180	\$180
SAC17370	Bicycle/Pedestrian	M STREET	M STREET BIKE ROUTE RESURFACING	1997	\$300	\$309
SAC17270	Bicycle/Pedestrian	VARIOUS	SOUTH NATOMAS EAST/WEST BIKEWAY CONNECTOR	2000	\$46	\$52
SAC17950	Bicycle/Pedestrian	VARIOUS	BUILD CLASS II AND III BIKEWAYS IN CITY FROM BIKEWAY MASTER PLAN	2000	\$500	\$563
SAC17960	Bicycle/Pedestrian	VARIOUS	SIDEWALK IMPROVEMENTS AT ELEMENTARY SCHOOLS	2000	\$1,000	\$1,126
SAC17970	Bicycle/Pedestrian	VARIOUS	BICYCLE PARKING AND SHOWER FACILITIES	2000	\$540	\$608
SAC19240	Bicycle/Pedestrian	18TH STREET BIKEWAY	CLASS II BIKEWAY FROM C STREET TO COMMERCIAL AVENUE	2000	\$10	\$11
SAC19520	Bicycle/Pedestrian	HAGGIN OAKS BIKE TRAIL	BIKE TRAIL THROUGH HAGGIN OAKS GOLF COURSE	2000	\$120	\$135
SAC19810	Bicycle/Pedestrian	VARIOUS LOCATIONS	BUILD CLASS I BIKEWAYS IN CITY FROM BIKEWAY MASTER PLAN	2000	\$3,000	\$3,378
SAC19230	Bicycle/Pedestrian	H STREET BIKEWAY	CLASS II BIKEWAY FROM 16TH STREET TO ALHAMBRA BOULEVARD	2002	\$8	\$9
SAC19200	Bicycle/Pedestrian	ELVAS BLVD BIKEWAY	CLASS II BIKEWAY TO CONNECT CSUS AND 65TH STREET LRT STATION	2006	\$100	\$134
SAC17850	Bicycle/Pedestrian	CANTERBURY BIKE TRAIL	BUILD CLASS I BIKE TRAIL FROM CANTERBURY RD TO AMERICAN RIVER BIKE TRAIL	2010	\$80	\$121
SAC19220	Bicycle/Pedestrian	M STREET	CLASS II BIKEWAY FROM ALHAMBRA BLVD TO 58TH ST, TRAFFIC CALMING MEASURES	2010	\$50	\$76
SAC19530	Bicycle/Pedestrian	H STREET BRIDGE BIKE TRAIL	BIKE TRAIL UNDER THE H STREET BRIDGE	2010	\$60	\$91
SAC19820	Bicycle/Pedestrian	VARIOUS LOCATIONS	BUILD CLASS I BIKEWAYS IN CITY FROM BIKEWAY MASTER PLAN	2010	\$3,000	\$4,539
SAC17990	Bicycle/Pedestrian	TOWER BRIDGE	TOWER BRIDGE PEDESTRIAN/BIKEWAY IMPROVEMENTS	2015	\$650	\$1,140
SAC19210	Bicycle/Pedestrian	ROSEVILLE ROAD BIKEWAY	CLASS II BIKEWAY FROM AUBURN BLVD TO CITY LIMITS TO ACCESS MCCLELLAN AFB	2015	\$5	\$9
SAC19250	Bicycle/Pedestrian	ELVAS/CSUS BIKE TUNNEL	CLASS I OR II BIKEWAY FROM ELVAS AVENUE TO CSUS	2015	\$2,300	\$4,034
SAC19500	Bicycle/Pedestrian	UPRR BIKE TRAIL PHASE II	BIKE TRAIL ALONG UPRR RIGHT-OF-WAY, CITY COLLEGE TO MORRISON CREEK	2015	\$1,100	\$1,929
SAC16260	Enhancement	SAC NORTHERN RR BIKEWAY	SAC NORTHERN RR BIKEWAY LANDSCAPING & FENCING, 4-MILE SEGMENT (CLASS I)	1996	\$1,500	\$1,500
SAC18700	Interchange Modify	I-80	EXTEND WB OFF-RAMP NORTHGATE BLVD, ADD LANES TO WB ON-RAMP, EB OFF-RAMP	2000	\$3,300	\$3,716
SAC18170	Interchange Modify	I-5	INTERIM RICHARDS BLVD RAMP IMPROVEMENTS, RELATED TO SP RAILYARD PROJECTS	2002	\$2,800	\$3,343
SAC18690	Interchange Modify	ROUTE 99	EXPAND ELKHORN BLVD IC, RELATED TO ELKHORN BLVD WIDENING (2 TO 6 LANES)	2005	\$3,625	\$4,731
SAC17600	Interchange Modify	ROUTE 160	MODIFY INTERCHANGE AT NORTHGATE BLVD--ADD WB OFF-RAMP AND EB ON-RAMP	2006	\$16,000	\$21,504
SAC18650	Interchange Modify	I-5	EXPAND THE EL CAMINO INTERCHANGE ON I-80 TO 4 LANES	2008	\$2,588	\$3,690
SAC18670	Interchange Modify	I-5	ADD 2ND LANE TO SB ON-RAMP FROM RT 99 TO I-5	2015	\$192	\$337
SAC16000	Interchange New	EXPOSITION BLVD	BUILD NEW INTERCHANGE AT RT 160 & PHASE 1 EXTENSION OF EXPOSITION BLVD	2006	\$20,000	\$26,880

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
SAC18380	Interchange New	I-5	BUILD NEW INTERCHANGE AT COSUMNES RIVER BLVD	2010	\$6,000	\$9,078
SAC18180	Interchange New	I-5	BUILD INTERCHANGE AT BANNON; EXTEND BANNON UNDER I-5 W/ RAMP	2015	\$14,600	\$25,608
SAC16020	Intersection	FOLSOM BLVD	GRADE SEPARATION AT INTERSECTION WITH HOWE AVE/POWER INN ROAD	2015	\$30,000	\$52,820
SAC17980	Plan/Study	VARIOUS	SACRAMENTO SCHOOL SAFETY PROGRAM	1996	\$670	\$670
SAC16590	Rail Crossing	VARIOUS LOCATIONS	RAIL GRADE CROSSING IMPROVEMENTS AT 12 SITES ON UNION PACIFIC TRACKS	1996	\$2,310	\$2,310
SAC19580	Road Multiple	I-80	ADD AUXILIARY LANE FROM TRUXEL TO NORTHGATE	1997	\$1,400	\$1,442
SAC15900	Road New	ARDEN WAY	ARDEN/GARDEN CONNECTOR PHASE 1, DEL PASO TO COLFAX: 4-LANE W/BIKE LANES	1996	\$1,000	\$1,000
SAC15950	Road New	COSUMNES RIVER BLVD	BRUCEVILLE ROAD TO ROUTE 99: CONSTRUCT 2 LANE ARTERIAL	1996	\$1,500	\$1,500
SAC15990	Road New	EXPOSITION BLVD	EXTEND FROM ITS WESTERN TERMINUS TO LEISURE LANE (PHASE 1)	1996	\$6,000	\$6,000
SAC15910	Road New	ARDEN WAY	ARDEN/GARDEN CONNECTOR PHASE 2, COLFAX TO NORTHGATE; 4-LANE W/BIKE LANES	1997	\$22,000	\$22,660
SAC16110	Road New	TRUXEL ROAD	BUILD 6-LANE ARTERIAL, SAN JUAN TO I-80, W/ BIKE LANES	1997	\$2,200	\$2,266
SAC18510	Road New	TRUXEL ROAD	EXTEND FROM PLANNED I-80/TRUXEL IC TO EAST LOOP RD	1997	\$2,000	\$2,060
SAC18230	Road New	7TH STREET	EXTEND TO THE NORTH, FROM G STREET TO NORTH B STREET	2003	\$8,500	\$10,455
SAC18350	Road New	B AND NORTH B STREETS	EXTEND B AND NORTH B STREETS	2004	\$7,500	\$9,503
SAC16050	Road New	NORTH MARKET BLVD	BUILD 8-LANE ARTERIAL FROM CURRENT TERMINUS TO I-5	2005	\$2,000	\$2,610
SAC18240	Road New	7TH STREET	EXTEND STREET FROM NORTH B STREET TO RICHARDS BOULEVARD	2005	\$4,700	\$6,134
SAC18440	Road New	COMMERCE WAY	EXTEND FROM PLANNED NORTH LOOP RD TO ELKHORN BLVD	2005	\$4,939	\$6,445
SAC18450	Road New	TRUXEL ROAD	EXTEND FROM PLANNED NORTH LOOP BLVD TO ELKHORN BLVD , 4 LANE ROAD	2005	\$4,759	\$6,210
SAC18460	Road New	COMMERCE WAY	EXTEND (6-LANE) FROM PLANNED NORTH LOOP RD TO DEL PASO RD	2005	\$6,890	\$8,991
SAC18470	Road New	TRUXEL ROAD	EXTEND (6-LANE)FROM PLANNED NORTH LOOP RD TO DEL PASO RD	2005	\$5,830	\$7,608
SAC18550	Road New	SOUTH LOOP ROAD	BUILD SOUTH LOOP RD IN NORTH NATOMAS FROM TRUXEL TO I-5 (NO INTERCHANGE)	2005	\$5,239	\$6,837
SAC18560	Road New	SOUTH LOOP ROAD	BUILD NEW SOUTH LOOP RD FROM I-5 TO EL CENTRO RD	2005	\$5,239	\$6,837
SAC18570	Road New	COMMERCE WAY	EXTEND (6-LANE) FROM STADIUM BLVD TO PLANNED SOUTH LOOP RD	2005	\$3,180	\$4,150
SAC18590	Road New	STADIUM WAY	EXTEND (4- AND 6-LANE) TO COMMERCE WAY, W/INTERCHANGE AT I-5	2005	\$4,231	\$5,521
SAC18280	Road New	RICHARDS BLVD	EXTEND FROM 7TH ST TO PLANNED GATEWAY BLVD (RELATED TO SP RAILYARDS)	2006	\$4,000	\$5,376
SAC16100	Road New	RICHARDS BLVD	EXTEND FROM ROUTE 160 TO ROUTE 51, W/ INTERCHANGE AT ROUTE 51	2008	\$20,400	\$29,090
SAC18710	Road New	"A" STREET	BUILD OVER I-5 (PART OF NEW "A" ST FROM EL CENTRO RD TO COMMERCE WAY)	2008	\$3,600	\$5,134
SAC18760	Road New	EVERGREEN STREET	EXTEND FROM CURVE BELOW ARDEN TO ROYAL OAKS DRIVE	2008	\$4,000	\$5,704
SAC18190	Road New	RIVERFRONT DRIVE	BUILD RIVERFRONT DR, PARALLEL TO VINE ST, UNDER RT 160, TO NB 160 ON RAMP	2009	\$5,300	\$7,786
SAC15930	Road New	COSUMNES RIVER BLVD	FRANKLIN BOULEVARD TO CENTER PARKWAY: CONSTRUCT 4 LANE ARTERIAL	2010	\$810	\$1,226
SAC17010	Road New	COSUMNES RIVER BLVD	EXTEND COSUMNES RIVER BLVD FROM I-5 TO FRANKLIN BLVD	2010	\$7,900	\$11,953
SAC18290	Road New	RICHARDS BLVD	EXTEND RICHARDS BLVD FROM THE PLANNED GATEWAY BLVD TO 16TH STREET.	2010	\$1,700	\$2,572
SAC18260	Road New	5TH STREET	EXTEND 5TH STREET NORTHWARD, FROM I STREET TO RICHARDS BLVD.	2011	\$8,000	\$12,464
SAC18300	Road New	BANNON STREET	EXTEND FROM I-5 TO PLANNED GATEWAY BLVD (RELATED TO SP RAILYARD)	2011	\$9,300	\$14,489
SAC18360	Road New	7TH STREET	EXTEND FROM N OF RICHARDS TO SACRAMENTO RIVER (PLANNED RIVERFRONT DR)	2013	\$4,600	\$7,604

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
SAC18370	Road New	10TH STREET	EXTEND 10TH STREET FROM NORTH OF B STREET TO PLANNED RIVERFRONT DRIVE	2014	\$2,800	\$4,766
SAC18580	Road New	COMMERCE WAY	EXTEND FROM EAST LOOP ROAD TO SAN JUAN ROAD, AS A 4-LANE ROAD	2015	\$2,694	\$4,725
SAC18600	Road New	"A" STREET (PLANNED)	BUILD "A" STREET FROM EL CENTRO ROAD TO COMMERCE WAY, AS A 4-LANE ROAD	2015	\$3,592	\$6,300
SAC18720	Road New	SOUTH LOOP ROAD	BUILD OVER I-5 (RELATED TO SOUTH LOOP RD EXTENSION, I-5 TO EL CENTRO RD)	2015	\$2,520	\$4,420
SAC18740	Road New	EL CENTRO ROAD	EXTEND EL CENTRO ROAD, FROM NEAR DEL PASO RD, OVER I-5, TO TRUXEL ROAD	2015	\$2,688	\$4,715
SAC17560	Road Widen	SHELDON ROAD	WIDEN FROM 2 TO 6 LANES, FROM BRUCEVILLE ROAD TO STATE ROUTE 99.	2000	\$2,000	\$2,252
SAC17590	Road Widen	BRUCEVILLE ROAD	WIDEN TO 6 LANES FROM SHELDON TO COSUMNES RIVER BLVD	2000	\$3,000	\$3,378
SAC16060	Road Widen	NORTHGATE BLVD	WIDEN TO 4 LANES FROM RT 160 TO GARDEN HWY, UPGRADE TO ALL-WEATHER ROAD	2002	\$7,000	\$8,358
SAC16092	Road Widen	RICHARDS BOULEVARD	WIDEN FROM 2 TO 4 LANES FROM N. 7TH TO N. 12TH ST, ADD BIKE LANES (PHASE 2)	2002	\$4,000	\$4,776
SAC16120	Road Widen	W. EL CAMINO AVE	WIDEN FROM 2 TO 6 LANES AND ADD BIKE LANES FROM I-5 TO I-80	2002	\$6,000	\$7,164
SAC18270	Road Widen	RICHARDS BLVD	WIDEN RICHARDS BOULEVARD TO 5 LANES, FROM I-5 TO 7TH STREET	2002	\$4,000	\$4,776
SAC17610	Road Widen	ELDER CREEK ROAD	WIDEN TO 4 LANES, FROM POWER INN ROAD TO SOUTH WATT	2003	\$4,000	\$4,920
SAC15970	Road Widen	DEL PASO ROAD	WIDEN TO 6 LANES FROM TRUXEL ROAD TO EL CENTRO ROAD	2005	\$17,200	\$22,446
SAC16080	Road Widen	POWER INN ROAD	WIDEN FROM 4 TO 6 LANES FROM FOLSOM BLVD TO FRUITRIDGE, BIKE LANES TO 14TH	2005	\$15,000	\$19,575
SAC18530	Road Widen	DEL PASO ROAD	WIDEN DEL PASO ROAD FROM TRUXEL ROAD EASTWARD TO THE CITY / COUNTY LINE	2005	\$4,404	\$5,747
SAC18540	Road Widen	EAST LOOP ROAD	WIDEN EAST LOOP ROAD FROM DEL PASO ROAD TO TRUXEL	2005	\$5,410	\$7,060
SAC18610	Road Widen	EL CENTRO ROAD	WIDEN EL CENTRO ROAD FROM DEL PASO ROAD TO SAN JUAN ROAD, TO 6 LANES	2005	\$6,049	\$7,894
SAC18500	Road Widen	ELKHORN BOULEVARD	WIDEN ELKHORN BLVD FROM ROUTE 99 TO THE CITY / COUNTY LINE, TO 6 LANES.	2006	\$4,000	\$5,376
SAC15920	Road Widen	COSUMNES RIVER BLVD	FRANKLIN TO ROUTE 99: WIDEN FROM 2 TO 6 LANES	2010	\$33,000	\$49,929
SAC17620	Road Widen	GARDEN HIGHWAY	WIDEN FROM 2 TO 4 LANES FROM NATOMAS PARK DRIVE TO NORTHGATE BLVD	2010	\$29,000	\$43,877
SAC18640	Road Widen	I-5	ADD A SECOND AUXILIARY LANE, FROM I-80 TO NORTH MARKET BLVD INTERCHANGE	2010	\$2,222	\$3,362
SAC16010	Road Widen	FLORIN-PERKINS ROAD	FOLSOM BLVD TO FLORIN ROAD – WIDEN TO 6 LANES	2015	\$22,000	\$38,588
SAC16040	Road Widen	JACKSON ROAD	WIDEN TO 4 LANES FROM FOLSOM BLVD TO SOUTH WATT AVENUE	2015	\$4,000	\$7,016
SAC16070	Road Widen	POWER INN ROAD	WIDEN TO 6 LANES FROM FRUITRIDGE TO FLORIN	2015	\$20,200	\$35,431
SAC18480	Road Widen	DEL PASO ROAD	WIDEN DEL PASO ROAD FROM THE CITY LIMITS TO EL CENTRO ROAD, TO 4 LANES.	2015	\$2,409	\$4,225
SAC18660	Road Widen	I-5	ADD AUXILIARY LANE IN EACH DIRECTION BETWEEN DEL PASO ROAD AND ROUTE 99	2015	\$696	\$1,221
SAC19550	Road Widen	RALEY BOULEVARD	WIDEN RALEY BOULEVARD TO 6 LANES TO CITY LIMITS	2015	\$4,100	\$7,191
SAC16640	Safety	SUTTERVILLE ROAD	AT WPRR BRIDGE 24C-300--SEISMIC RETROFIT	1996	\$200	\$200
SAC16990	Safety	EXPOSITION BLVD	CONSTRUCT TRAFFIC SIGNALS ON EAST & WEST SIDES OF RT 51 ON EXPOSITION BLVD	1996	\$250	\$250
SAC19560	Safety	ROUTE 51	ARDEN WAY UNDERPASS IMPROVEMENTS TO REMOVE RESTRICTION FROM COLUMNS	2010	\$8,000	\$12,104
SAC19780	Transit Capital	INTERMODAL TERMINAL	INTERMODAL TERMINAL AT 7TH STREET AND NORTH B STREET	2010	\$12,400	\$18,761
SAC16230	TSM/TDM	SAC RIVER PKWY BIKE TRAIL	BUILD INTERPRETIVE KIOSKS, SIGNS, CALL BOXES ON E. BANK OF SACRAMENTO RIVER	1996	\$159	\$159
SAC17940	TSM/TDM	VARIOUS	NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM	1996	\$400	\$400
SAC18780	TSM/TDM	ROUTE 160	SIGNAL UPGRADE AND INTERCONNECT FROM BROADWAY TO BLAIR AVENUE	1996	\$767	\$767
SAC18790	TSM/TDM	ROUTE 160	FIBEROPTIC COMM SYSTEM FROM DEL PASO BLVD TO I ST, & 12TH ST TO 10TH ST	1996	\$545	\$545

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
SAC16600	TSM/TDM	DOWNTOWN SACRAMENTO	DOWNTOWN TRAFFIC MASTER CONTROLLER PROJECT	1997	\$4,900	\$5,047
SAC19570	TSM/TDM	G/H STREETS	RETURN G & H STREETS TO 2-WAY STREETS BETWEEN 29TH & 19TH STREETS	1997	\$1,500	\$1,545
			City Of Sacramento Total		\$530,726	\$757,595
Sacramento County						
SAC17900/19830	Bicycle/Pedestrian	VARIOUS	IMPLEMENTATION OF SACRAMENTO COUNTY BIKEWAY MASTER PLAN	2000	\$10,556	\$11,886
SAC19840	Bicycle/Pedestrian	VARIOUS	VARIOUS BIKEWAYS	2010	\$3,952	\$5,980
SAC18810	Enhancement	CALVINE ROAD CORRIDOR	CALVINE RD CORRIDOR PROJECT: PATH FROM POWER INN TO AUBERRY	1996	\$227	\$227
SAC19190	Interchange Modify	ROUTE 50	MODIFY & METER RAMPS, UPGRADE SIGNALS, STRIPING @ BRADSHAW IC	1997	\$5,200	\$5,356
SAC18070	Interchange Modify	I-80	IMPROVE INTERCHANGE AT GREENBACK LANE / ELKHORN BLVD	1998	\$5,038	\$5,345
SAC19350	Interchange Modify	ROUTE 50	WIDEN WATT/FOLSOM OC TO 3 THROUGH LANES, AUX LANES, RAMPS TO 3 LANES	2006	\$11,600	\$15,590
SAC19360	Interchange Modify	ROUTE 50	WIDEN SUNRISE BLVD OVERCROSSING TO 3 THROUGH LANES WITH AUXILIARY LANES	2006	\$5,100	\$6,854
SAC19370	Interchange Modify	I-80	WIDEN MADISON AVE OC TO 3 THROUGH LANES W/AUX LANE WB, RAMP WIDENINGS	2006	\$2,000	\$2,688
SAC19380	Interchange Modify	ROUTE 99	WIDEN SHELTON IC TO 6 THROUGH LANES WITH AUX LANES, REALIGN FRONTAGE ROADS	2006	\$18,400	\$24,730
SAC18150	Interchange New	INTERSTATE 5	BUILD NEW INTERCHANGE AT SPA ROAD (METRO AIRPARK)	2001	\$5,200	\$6,027
SAC15741	Intersection	WATT @ FAIR OAKS BLVD	ADD TURN LANES ON SEVERAL APPROACHES, EXTEND 3 SB THROUGH LANES	1996	\$1,200	\$1,200
SAC16820	Intersection	GREENBACK @ HAZEL AVE	WIDEN ALL APPROACHES FOR TWO LEFT TURN LANES, RIGHT TURN LANE, BUS TURNOUT	1997	\$1,467	\$1,511
SAC16830	Intersection	HAZEL @ MADISON AVE	WIDEN INTERSECTION FOR A 3RD THROUGH LANE, 2ND LEFT TURN LANE EACH WAY	1997	\$1,071	\$1,103
SAC16870	Intersection	MARCONI @ WATT AVE	WIDEN ALL APPROACHES EXCEPT NORTHBOUND	1997	\$1,067	\$1,099
SAC16960	Intersection	ROUTE 16	MODIFY SIGNAL @ BRADSHAW, ADD DUAL LT LANES & THROUGH LANES; 2 NB LANES	1997	\$610	\$625
SAC19140	Intersection	OLD AUBURN ROAD	BUILD 2-WAY LT LANE FROM E. OF SYLVAN RD TO MARIPOSA, WIDEN APPROACHES	1997	\$864	\$890
SAC16710	Intersection	AUBURN @ WATT AVENUE	WIDEN INTERSECTION—ON WATT ADD 2ND LT LANES NB AND SB, & NB RT LANE	1998	\$616	\$654
SAC19040	Intersection	BRADSHAW ASSESS DIST	MODIFY SIGNAL FOLSOM @ ROUTIER, ADD SIGNALS AT 5 SITES IN BRADSHAW A.D.	1998	\$2,025	\$2,149
SAC18080	Intersection	FOLSOM @ WATT AVE	GRADE SEPARATION OF INTERSECTION FOR LIGHT RAIL TRACKS	2002	\$6,000	\$7,164
SAC19590	Intersection	VARIOUS	PROVIDE TURNING MOVEMENTS AND IMPROVE INTERSECTIONS	2006	\$533	\$716
SAC19300	Road New	DWIGHT ROAD	EXTEND DWIGHT RD (4 LANES) FROM FRANKLIN BOULEVARD TO LAGUNA	1997	\$1,300	\$1,339
SAC19150	Road New	ROAD 8	BUILD NEW 3-LANE ROAD BETWEEN BIG HORN BLVD AND SHELTON ROAD	1999	\$2,776	\$3,034
SAC15070	Road Widen	BRADSHAW ROAD	WIDEN FROM 4 TO 6 LANES FROM FOLSOM BLVD TO KEIFER ROAD	1996	\$3,170	\$3,170
SAC16700	Road Widen	ARDEN @ FULTON AVE	WIDEN INTERSECTION – ADD TURN LANES ON SEVERAL APPROACHES	1996	\$1,351	\$1,351
SAC16720	Road Widen	ARDEN @ WATT AVE	WIDEN APPROACHES TO INTERSECTION, RECONSTRUCT SIGNAL SYSTEM AND MEDIAN	1996	\$1,448	\$1,448
SAC15090	Road Widen	CALVINE ROAD	WIDEN FROM 2 TO 4 LANES FROM POWER INN TO ELK GROVE FLORIN	1997	\$3,749	\$3,861
SAC15200	Road Widen	ELKHORN BLVD	WIDEN FROM 2 TO 4 LANES FROM 24TH ST TO DRY CREEK, W/ NEW & MODIFIED SIGNALS	1997	\$2,340	\$2,410
SAC15310	Road Widen	GREENBACK LANE	WIDEN FROM 4 TO 6 LANES FROM DEWEY DRIVE TO SAN JUAN AVE	1997	\$3,033	\$3,124
SAC16420	Road Widen	BRUCEVILLE ROAD	WIDEN FROM 2 TO 4 LANES FROM LAGUNA BLVD TO SHELTON ROAD	1997	\$3,841	\$3,956
SAC19060	Road Widen	DON JULIO BLVD	WIDEN FROM 2 TO 4 LANES BETWEEN ANTELOPE RD AND NORTH LOOP BLVD	1997	\$421	\$434

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
SAC15160	Road Widen	ELK GROVE- FLORIN ROAD	WIDEN FROM 2 TO 4 LANES FROM CALVINE RD TO GERBER RD, ADD BIKE LANES	1998	\$4,547	\$4,824
SAC15190	Road Widen	ELKHORN BLVD	WIDEN FROM 2 TO 4 LANES FROM 6TH STREET TO DRY CREEK ROAD	1998	\$3,871	\$4,107
SAC15240	Road Widen	FAIR OAKS BLVD	WIDEN FROM 4 TO 6 LANES FROM ENGLE RD TO CYPRESS AVE, BIKE LANES, SIGNALS	1998	\$2,721	\$2,887
SAC15300	Road Widen	GREENBACK LANE	WIDEN FROM 4 TO 6 LANES FROM AUBURN BLVD TO DEWEY DRIVE	1998	\$3,508	\$3,722
SAC15750	Road Widen	WATT AVE	WIDEN FROM 4 TO 6 LANES FROM DON JULIO BLVD TO VAN OWEN	1998	\$2,300	\$2,440
SAC19070	Road Widen	DON JULIO BLVD	WIDEN FROM 2 TO 4 LANES BETWEEN ELKHORN BLVD AND ANTELOPE ROAD	1998	\$500	\$531
SAC15710	Road Widen	WALERGA ROAD	WIDEN FROM 2 TO 4 LANES FROM ELKHORN BLVD TO ANTELOPE ROAD	1999	\$254	\$278
SAC15720	Road Widen	WATT AVE	WIDEN FROM 4 TO 6 LANES FROM ELKHORN BLVD TO ANTELOPE ROAD	1999	\$1,080	\$1,180
SAC15742	Road Widen	WATT AVE	WIDEN FROM FAIR OAKS TO N. OF RT 50, ADD AUX LANES, RAMP METERS, HOV BYPASS	1999	\$16,500	\$18,035
SAC19050	Road Widen	CALVINE ROAD	WIDEN FROM 2 TO 4 LANES FROM ELK GROVE-FLORIN RD TO EAST OF WATERMAN RD	1999	\$1,643	\$1,796
SAC15220	Road Widen	ELKHORN BLVD	WIDEN FROM 4 TO 6 LANES FROM DON JULIO BLVD TO DIABLO DRIVE	2000	\$2,489	\$2,803
SAC15340	Road Widen	HAZEL AVE	AMERICAN RIVER BRIDGE & APPROACHES: WIDEN FROM 4 TO 6 LANES, BIKE TRAIL LINKS	2000	\$5,000	\$6,756
SAC15360	Road Widen	HAZEL AVE	WIDEN FROM 2 TO 4 LANES FROM OAK AVENUE TO PLACER COUNTY LINE	2000	\$2,220	\$2,500
SAC16910	Road Widen	SUNRISE BOULEVARD	WIDEN FROM 4 TO 6 LANES FROM ANTELOPE RD TO PLACER CO LINE, RAISED MEDIAN	2000	\$2,325	\$2,618
SAC16920	Road Widen	SUNRISE BOULEVARD	WIDEN FROM 4 TO 6 LANES FROM GREENBACK TO ANTELOPE RD, RAISED MEDIAN	2000	\$3,421	\$3,852
SAC19120	Road Widen	NORTH LOOP BLVD	WIDEN FROM 2 TO 4 LANES FROM ELVERTA ROAD TO DON JULIO BLVD IN ANTELOPE	2000	\$621	\$699
SAC19130	Road Widen	OLD AUBURN ROAD	SAFETY/CAPACITY PROJECT FROM MARIPOSA TO WACHTEL WAY; STUDY WILL DEFINE	2000	\$3,917	\$4,411
SAC19320	Road Widen	BRADSHAW ROAD	WIDEN FROM 2 TO 4 LANES FROM FLORIN ROAD TO KIEFER BLVD	2000	\$6,000	\$6,756
SAC15030	Road Widen	ANTELOPE ROAD	WIDEN FROM 4 TO 6 LANES FROM ROSEVILLE ROAD TO TUPELO ROAD	2001	\$465	\$539
SAC15230	Road Widen	ELKHORN BLVD	WIDEN FROM 4 TO 6 LANES FROM WATT AVENUE TO WALERGA ROAD	2001	\$1,400	\$1,623
SAC15350	Road Widen	HAZEL AVE	WIDEN FROM 4 TO 6 LANES FROM AMERICAN RIV BR TO MADISON, BIKE LANES, SIGNALS	2001	\$13,700	\$15,878
SAC15660	Road Widen	SHELDON ROAD	WIDEN FROM 2 TO 4 LANES FROM POWER INN ROAD TO ELK GROVE-FLORIN ROAD	2001	\$1,418	\$1,643
SAC15680	Road Widen	SHELDON ROAD	WIDEN FROM 2 TO 4 LANES FROM BRUCEVILLE ROAD TO ROUTE 99	2001	\$1,500	\$1,739
SAC16800	Road Widen	FAIR OAKS BOULEVARD	WIDEN FROM 4 TO 6 LANES FROM MARCONI TO ENGLE, MODIFY SIGNALS AT 4 IC'S	2001	\$4,066	\$4,712
SAC19170	Road Widen	SOUTH WATT AVENUE	WIDEN FROM 2 TO 4 LANES FROM ALDERSON AVE TO ROUTE 16, ADD LEFT TURN LANES	2001	\$693	\$803
SAC19770	Road Widen	ANTELOPE ROAD	WIDEN TO 4 LANES ON NORTHSIDE FROM WALERGA ROAD TO DON JULIO BOULEVARD	2001	\$230	\$267
SAC19790	Road Widen	ANTELOPE ROAD	WIDEN FROM 4 TO 6 LANES FROM DON JULIO BLVD TO ROSEVILLE ROAD	2001	\$735	\$852
SAC19000	Road Widen	ANTELOPE ROAD	WIDEN FROM 4 TO 6 LANES FROM I-80 TO AUBURN BOULEVARD	2002	\$2,168	\$2,589
SAC19030	Road Widen	BOND ROAD	WIDEN FROM 2 TO 4 LANES FROM ELK GROVE-FLORIN ROAD TO WATERMAN ROAD	2002	\$1,034	\$1,235
SAC19160	Road Widen	SHELDON ROAD	WIDEN FROM 2 TO 4 LANES FROM ELK GROVE-FLORIN ROAD TO WATERMAN ROAD	2002	\$1,029	\$1,229
SAC15250	Road Widen	FOLSOM BLVD	WIDEN FROM 4 TO 6 LANES FROM MATHER FIELD ROAD TO COLOMA ROAD	2003	\$1,900	\$2,337
SAC16500	Road Widen	MADISON AVENUE	WIDEN FROM 4 TO 6 LANES FROM SUNRISE BLVD TO HAZEL AVENUE	2003	\$5,436	\$6,686
SAC19090	Road Widen	GREENBACK LANE	WIDEN FROM 4 TO 6 LANES FROM SUNRISE BLVD TO HAZEL AVENUE	2003	\$4,871	\$5,991
SAC19290	Road Widen	SOUTH WATT	WIDEN FROM 2 TO 4 LANES FROM ELDER CREEK TO ROUTE 16	2003	\$5,000	\$6,150
SAC19610	Road Widen	CYPRESS AVENUE	WIDEN FROM 2 TO 4 LANES FROM WALNUT AVENUE TO MAZANITA	2003	\$1,600	\$1,968

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
SAC19620	Road Widen	ELVERTA ROAD	WIDEN FROM 2 TO 4 LANES FROM 16TH STREET TO WATT AVENUE	2003	\$2,699	\$3,320
SAC19310	Road Widen	BRADSHAW ROAD	WIDEN FROM 2 TO 4 LANES FROM CALVINE ROAD TO FLORIN ROAD	2004	\$6,000	\$7,602
SAC19330	Road Widen	16TH STREET	WIDEN FROM 2 TO 4 LANES FROM CITY LIMITS TO ELKHORN BOULEVARD	2004	\$4,000	\$5,068
SAC19650	Road Widen	GARFIELD AVENUE	WIDEN FROM 4 TO 6 LANES FROM AUBURN BLVD TO GREENBACK LANE	2004	\$1,285	\$1,628
SAC15170	Road Widen	ELK GROVE- FLORIN ROAD	WIDEN FROM 2 TO 4 LANES FROM GERBER ROAD TO FLORIN ROAD	2005	\$3,000	\$3,915
SAC19630	Road Widen	FAIR OAKS BLVD	WIDEN FROM 2 TO 4 LANES FROM GREENBACK LANE TO OLD AUBURN ROAD	2005	\$1,088	\$1,420
SAC19680	Road Widen	ROSEVILLE ROAD	WIDEN FROM 2 TO 4 LANES FROM WATT AVENUE TO OAK HOLLOW	2005	\$1,845	\$2,408
SAC19700	Road Widen	STOCKTON BOULEVARD	WIDEN FROM 4 TO 6 LANES FROM ELSIE TO FLORIN ROAD	2005	\$3,464	\$4,521
SAC19260	Road Widen	ELVERTA ROAD	WIDEN FROM 2 TO 4 LANES FROM RIO LINDA TO 16TH STREET	2006	\$2,700	\$3,629
SAC19280	Road Widen	SOUTH WATT	WIDEN FROM 2 TO 4 LANES FROM FLORIN ROAD TO ELDER CREEK	2006	\$2,500	\$3,360
SAC19600	Road Widen	AUBURN BLVD	WIDEN FROM 4 TO 6 LANES FROM GREENBACK LANE TO MANZANITA	2006	\$1,187	\$1,595
SAC15260	Road Widen	FOLSOM BLVD	WIDEN FROM 2 TO 4 LANES FROM MERCANTILE TO HAZEL AVENUE	2007	\$2,300	\$3,183
SAC19710	Road Widen	SUNRISE BOULEVARD	WIDEN FROM 2 TO 4 LANES FROM DOUGLAS ROAD TO GRANTLINE ROAD	2009	\$4,135	\$6,074
SAC19640	Road Widen	FRANKLIN BLVD	WIDEN FROM 4 TO 6 LANES FROM MARTIN LUTHER KING, JR BOULEVARD TO FLORIN RD	2010	\$1,999	\$3,024
SAC19660	Road Widen	GRANTLINE	WIDEN FROM 2 TO 4 LANES FROM SLOUGHOUSE ROAD TO SUNRISE BOULEVARD	2010	\$2,052	\$3,105
SAC19670	Road Widen	GRANTLINE	WIDEN FROM 2 TO 4 LANES FROM BOND ROAD TO SLOUGHOUSE ROAD	2010	\$6,605	\$9,993
SAC16980	Safety	SHELDON	INSTALL TRAFFIC SIGNALS AT ROUTE 99 OFF-RAMPS	1996	\$300	\$300
SAC19180	Safety	ROUTE 16 @ DILLARD ROAD	INSTALL TRAFFIC SIGNAL AT INTERSECTION	1996	\$105	\$105
SAC16970	Safety	ROUTE 16 @ GRANT LINE RD	INSTALL TRAFFIC SIGNAL AT INTERSECTION	1997	\$200	\$206
SAC16940	Safety	WALNUT @ WINDING WAY	INSTALL TRAFFIC SIGNAL AT INTERSECTION	1998	\$889	\$943
SAC19340	Safety	GRANTLINE @ WHITE ROCK RD	REALIGN AND REBUILD FROM DOUGLAS ROAD TO WEST OF PRAIRIE CITY ROAD	2001	\$2,600	\$3,013
SAC18010	TSM/TDM	VARIOUS	ZERO AIR POLLUTION II – DEMAND MANAGEMENT PROGRAM	1997	\$248	\$256
SAC19010	TSM/TDM	ARDEN/FULTON AREA	COORD. FULTON, WATT, & HOWE AVE SIGNAL SYSTEMS: UPGRADE CONTROLLERS	1997	\$823	\$848
SAC19080	TSM/TDM	ELKHORN @ N. WATT AVE	COORD. WATT-ELKHORN AREA INTERSECTIONS: UPGRADE CONTROLLERS	1997	\$621	\$640
SAC17880	TSM/TDM	VARIOUS	COUNTYWIDE TRAFFIC OPERATIONS CENTER: TRAFFIC MONITORING, INCIDENT MGMT	1998	\$1,600	\$1,698
SAC18830	TSM/TDM	VARIOUS	TRANSIT OVERLAY/PARKING MANAGEMENT PROGRAM	1998	\$165	\$175
SAC19020	TSM/TDM	AUBURN @ WATT AVE	ADD MAIN LINE DETECTION TO 15 SIGNALIZED INTERSECTIONS	1998	\$235	\$249
			Sacramento County Total		\$271,963	\$324,637
Sacramento Metropolitan Air Quality Management District						
SAC18060	OTHER	GENERAL	HEAVY DUTY NOX REDUCTION PROGRAM	1996-2005	\$28,000	\$32,100
SAC18040/18041	OTHER	GENERAL	SPARE THE AIR EDUCATIONAL PROGRAM	1996-2005	\$2,702	\$3,388
			SMAQMD Total		\$30,702	\$35,488
Sacramento Transportation Authority						
SAC16300/17870	TSM/TDM	FREEWAYS	OPERATE FREEWAY SERVICE PATROL, 1996 - 2015	1996-2015	\$27,859	\$46,339

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
Caltrans, Within Sacramento County						
CAL16010	Enhancement	VARIOUS	HISTORIC BRIDGE SIGNING	1996	\$7	\$7
CAL16790	HOV Lane	ROUTE 50	HOV LANE ON HIGHWAY 50 FROM 15TH/16TH STREETS TO MAYHEW ROAD	2010	\$54,300	\$82,156
CAL16870	HOV Lane	ROUTE 99/ROUTE 51	BUILD HOV LANE FROM MLK JR OVERCROSSING TO N ST (TAKE-A-LANE 51/99 TO N ST)	1998	\$5,400	\$5,902
CAL15080	HOV Lane	ROUTE 99	BUILD HOV LANE FROM 0.8 MILE S. OF ELK GROVE BLVD OC TO MACK RD OC	1997	\$15,600	\$16,068
CAL15135	HOV Lane	I-80	ADD HOV LANES FROM MADISON AVENUE TO COUNTY LINE	2005	\$22,800	\$29,754
CAL16780	HOV Lane	ROUTE 50	HOV LANE ON HIGHWAY 50 FROM SUNRISE BLVD TO PRAIRIE CITY ROAD	2010	\$31,900	\$48,265
CAL15710	Interchange Modify	ROUTE 50	MODIFY FOLSOM BLVD INTERCHANGE AND CONSTRUCT AUXILIARY LANES	1998	\$6,500	\$6,897
CAL15700	Interchange Modify	ROUTE 50	MODIFY PRAIRIE CITY INTERCHANGE AND CONSTRUCT AUXILIARY LANES	1998	\$12,200	\$12,200
CAL15530	Interchange Modify	ROUTE 99	ELK GROVE BLVD IC: WIDEN OVERCROSSING FROM 2 TO 6 LANES AND REVISE RAMPS	1996	\$8,550	\$8,550
CAL15630	Interchange Modify	ROUTE 51	BRAIDED RAMPS AND AUXILIARY LANE AT RT 51/160; CLOSE TRIBUTE RD ON-RAMP	2010	\$12,000	\$18,156
CAL15620	Interchange Modify	ROUTE 51	EB ON-RAMPS AT EXPOSITION BLVD	2015	\$3,000	\$5,262
CAL15510	Interchange New	ROUTE 99	BUILD NEW ELVERTA ROAD INTERCHANGE	2010	\$8,000	\$12,104
CAL15650	Interchange New	I-80	BUILD TRUXEL RD INTERCHANGE (6 LANES), AUXILIARY LANES, AND RAMP METERS	1997	\$9,445	\$9,728
CAL15560	Interchange New	I-5	BUILD N. MARKET IC (6 LANES), AUX LANES (I-80 - DEL PASO); MODIFY I-80&DEL PASO ICS	2005	\$12,000	\$15,660
CAL15680	Interchange New	ROUTE 50	CONSTRUCT 4-LANE INTERCHANGE AT OAK AVE EXTENSION	2008	\$11,500	\$16,399
CAL15690	Interchange New	ROUTE 50	CONSTRUCT 4-LANE INTERCHANGE AT RUSSELL RANCH RD EXTENSION	2008	\$11,500	\$16,399
CAL15660	Interchange New	ROUTE 160	BUILD RICHARDS BLVD INTERCHANGE	2015	\$16,000	\$28,064
CAL10040	Rail Crossing	VARIOUS	RAIL HIGHWAY CROSSINGS AND PROTECTIVE DEVICES--LUMP SUM LISTING (1993-1999)	1999	\$1,500	\$1,500
CAL15410	Road Widen	ROUTE 16	WIDEN FROM 2 TO 4 LANES FROM S. WATT AVE TO TREEVIEW RD, ADD LEFT TURN LANE	2010	\$8,000	\$12,104
CAL16900	Road Widen	ROUTE 99	ADD A LANE IN EACH DIRECTION ON ROUTE 99, FROM I-5 TO ELKHORN BOULEVARD.	2006	\$1,540	\$2,070
CAL15500	Road Widen	ROUTE 50	WIDEN BRADSHAW OVERCROSSING FROM 4 TO 6 LANES, EB RAMP, AND AUX LANES	1996	\$2,835	\$2,835
CAL10070	Safety	ROUTE 16	FROM TREEVIEW RD TO FOLSOM SOUTH CANAL BRIDGE--ADD SHOULDERS, REALIGN	1997	\$3,300	\$3,399
CAL16920	TSM/TDM	I-5	CALTRANS' TRAFFIC OPERATIONS SYSTEM FOR I-5	2006	\$6,300	\$8,467
CAL16930	TSM/TDM	ROUTE 50	CALTRANS' TRAFFIC OPERATIONS SYSTEM FOR ROUTE 50	2000	\$3,700	\$4,166
CAL16910	TSM/TDM	ROUTE 51/I-80/ROUTE 160	CALTRANS' TRAFFIC OPERATIONS SYSTEM FOR ROUTES 51/80/160	1999	\$4,400	\$4,809
CAL10330	TSM/TDM	ROUTE 50	RAMP METERS, SIGNAL ADJ. FROM 10TH ST UNDERCROSSING TO VICINITY OF 17TH ST	1996	\$409	\$409
CAL16030	TSM/TDM	ROUTE 51	TRAFFIC MONITORING STATIONS, CCTV FROM AMERICAN RIVER BRIDGE TO I-80	1996	\$265	\$265
CAL16300	Transit Capital	AMTRAK STATION	SACRAMENTO AMTRAK STATION IMPROVEMENTS FOR INTERCITY RAIL--PHASE 2	1996	\$1,300	\$1,300
			Caltrans Total		\$274,251	\$372,895
Sutter County Jurisdictions						
City of Live Oak						

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
YUB15260	Bicycle/Pedestrian	P STREET	P STREET BICYCLE PROJECT FROM PENNINGTON ROAD TO DATE STREET	2015	\$10	\$20
Yuba City						
YUB15240	Bicycle/Pedestrian	B STREET	B STREET BICYCLE PROJECT FROM CLARK AVENUE TO SECOND STREET, CLASS II	2015	\$10	\$20
Sutter County						
YUB15230	Bicycle/Pedestrian	LINCOLN ROAD	LINCOLN ROAD BICYCLE PROJECT FROM WALTON AVE TO PHILLIPS ROAD, CLASS II	2015	\$30	\$60
YUB15280	Bicycle/Pedestrian	FRANKLIN ROAD	FRANKLIN ROAD BICYCLE PROJECT FROM OHLEYER ROAD TO TOWNSHIP, CLASS II	2015	\$10	\$20
			Sutter County Total		\$40	\$80
Caltrans, Within Sutter County						
CAL16950	Interchange New	ROUTE 99	BUILD NEW INTERCHANGE AT RIEGO ROAD, 1 LANE IN EACH DIRECTION.	2005	\$12,000	\$15,660
CAL15780	Interchange New	ROUTE 20	URBAN INTERCHANGE AT ROUTE 99 (PHASE 1: INTERIM INTERSECTION WIDENING)	2010	\$12,000	\$4,840
CAL15722	Road Widen	ROUTE 70	FROM ROUTE 70/99 WYE TO 1 MI N OF BEAR RIVER--UPGRADE TO EXPRESSWAY	2010	\$85,000	\$110,925
CAL16960	Road Widen	ROUTE 99	ADD PASSING LANES BOTH DIRECTIONS, GARDEN HWY TO SACRAMENTO AVE	1998	\$5,000	\$5,305
CAL15770	Road Widen	ROUTE 20	WIDEN FROM 4 TO 6 LANES FROM WALTON TO ROCCA WAY	2010	\$2,000	\$3,000
			Caltrans Total		\$116,000	\$139,730
Yolo County Jurisdictions						
City of Davis						
YOL15330	Bicycle/Pedestrian	IN THE CITY OF DAVIS	DAVIS BICYCLE USE ENHANCEMENT PROJECT	1997	\$450	\$464
YOL15570	Bicycle/Pedestrian	I-80	BUILD PUTAH CREEK BIKE PATH ACROSS PUTAH CREEK CROSSING	1996	\$3,200	\$3,200
YOL15860	Bicycle/Pedestrian	VARIOUS	BIKE/PED PROJECTS: EXPAND SIDEWALKS, SIGNS, ROAD REPAIR ON TWO CORRIDORS	1997	\$254	\$261
YOL15580	Bicycle/Pedestrian	I-80	BICYCLE OVERCROSSING AT MACE RANCH BETW MACE BLVD AND DRUMMOND AVE	2003	\$2,100	\$2,583
YOL15340	Plan/Study	VARIOUS	DAVIS TRIP REDUCTION PROGRAM--4 AGENCY EFFORT TO REDUCE SOLO DRIVING	1996	\$197	\$197
YOL15710	Plan/Study	VARIOUS	DAVIS CLEAN FUELS PROGRAM	1996	\$379	\$379
YOL15720	Plan/Study	VARIOUS	DAVIS TRIP REDUCTION PROGRAM	1996	\$229	\$229
YOL15730	Plan/Study	VARIOUS	DAVIS BICYCLE-USE PROGRAM	1996	\$162	\$162
YOL15560	Rail Crossing	POLE LINE ROAD	BUILD 2-LANE POLE LINE RD OVERCROSSING OF I-80 TO SPAN RR TRACKS & CHILES RD	1996	\$8,350	\$8,350
YOL15590	Road Widen	RICHARDS BLVD AREA	WIDEN UNDERPASS FOM 2 TO 4 LANES AT SOUTHERN PACIFIC RAILROAD TRACKS	1999	\$8,900	\$9,725
UNI10091	Transit Capital	DAVIS INTERMODAL STATION	ACQUISITION AND SITE PREPARATION OF SMALL PARCEL (PHASE IVb)	1996	\$365	\$365
UNI10092	Transit Capital	DAVIS INTERMODAL STATION	PRELIMINARY ENGINEERING (PHASE IVa)	1996	\$146	\$146
UNI10093	Transit Capital	DAVIS INTERMODAL STATION	ACQUISITION AND SITE PREPARATION FOR LARGE PARCEL (PHASE IVc)	1996	\$675	\$675

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
UNI10120	Transit Capital	DAVIS INTERMODAL STATION	PLATFORM IMPROVEMENTS	1996	\$420	\$420
YOL15240	Transit Capital	DAVIS INTERMODAL STATION	STATION ENHANCEMENTS: BIKE LOCKERS, LANDSCAPING AT HISTORIC STATION	1996	\$192	\$192
YOL15650	Transit Capital	AMTRAK STATION	LANDSCAPING AND EXPANSION OF PARKING FACILITIES AT STATION	1997	\$366	\$377
YOL15870	TSM/TDM	I-80	BUILD 200-SPACE PARK-AND-RIDE @ MACE BLVD. IC FOR CARPOOL, BIKE, TRANSIT	1998	\$240	\$255
			Davis Total		\$26,625	\$27,980
Unitrans						
UNI10000	Transit Capital	GENERAL	FAST-FLOW CNG FUELING FACILITY	1996	\$1,200	\$1,200
UNI10060	Transit Capital	GENERAL	UPGRADE TWO DOUBLE-DECKER BUSES	1996	\$237	\$237
UNI10071	Transit Capital	GENERAL	RADIO COMMUNICATION SYSTEM	1996	\$262	\$262
UNI10140	Transit Capital	GENERAL	BUY NON- REVENUE VEHICLES	1996	\$54	\$54
UNI10190	Transit Capital	GENERAL	BUY 2 ELECTRIC BUSES AND CNG EQUIPMENT	1996	\$1,000	\$1,000
UNI10180	Transit Capital	GENERAL	BUY 7 CLEAN AIR TECHNOLOGY REPLACEMENT AND EXPANSION BUSES	1997	\$5,072	\$5,224
UNI10200	Transit Capital	GENERAL	BUY 11 NEW BUSES & ONE SMALL BUS	1999	\$4,100	\$4,481
UNI10210	Transit Capital	GENERAL	PURCHASE 21 NEW BUSES	2010	\$7,000	\$10,591
			Unitrans Total		\$18,925	\$23,050
City of West Sacramento						
YOL15350	Bicycle/Pedestrian	VARIOUS	IMPLEMENT WEST SACRAMENTO BICYCLE MASTER PLAN	2015	\$100	\$175
YOL15520	Bicycle/Pedestrian	WEST CAPITOL AVENUE	WEST CAPITOL AVE BICYCLE PROJECT FROM YOLO CAUSEWAY TO THE TOWER BRIDGE	2015	\$6	\$11
YOL15740	Bicycle/Pedestrian	TOWER BRIDGE	TOWER BRIDGE PEDESTRIAN/BIKEWAY IMPROVEMENTS	2015	\$650	\$1,140
YOL15160	Bridge New	INDUSTRIAL BLVD	NEW CANAL CROSSING WEST OF JEFFERSON	1997	\$16,700	\$16,700
YOL15180	Bridge New	SOUTH RIVER ROAD	NEW CANAL CROSSING	2015	\$8,000	\$14,032
YOL15670	Interchange Modify	I-80	WIDEN RAMPS AND INSTALL RAMP METERS AT REED AVENUE INTERCHANGE	2005	\$4,000	\$5,220
YOL15130	Road Widen	HARBOR BLVD	WIDEN FROM WEST CAPITOL AVE TO INDUSTRIAL BLVD	1999	\$1,200	\$1,200
YOL15140	Road Widen	HARBOR BLVD	WIDEN FROM WEST CAPITOL AVE TO REED AVE	1996	\$7,800	\$7,800
YOL15150	Road Widen	INDUSTRIAL BLVD	WIDEN FROM HARBOR BLVD TO STONE AVE	1998	\$5,000	\$5,000
YOL15680	TSM/TDM	ROUTE 50	MODIFY SOUTH RIVER RD INTERCHANGE -- ADD RAMP METERS AND MODIFY RAMPS	2005	\$3,500	\$4,568
			West Sacramento Total		\$46,956	\$55,846
City of Winters						
YOL15380	Bicycle/Pedestrian	MAIN STREET	GRANT TO EMERY -- CLASS 2 BIKEWAYS AND WHEELCHAIR ACCESS RAMPS	1996	\$55	\$55
YOL15490	Bicycle/Pedestrian	ROUTE 128 (GRANT AVENUE)	BUILD CLASS II BIKEWAY FROM WEST CITY LIMIT TO CEMETARY DRIVE	2015	\$23	\$40
YOL15500	Bicycle/Pedestrian	ROUTE 128 (GRANT AVENUE)	BUILD CLASS II BIKEWAY FROM EASTERN CITY LIMIT TO RAILROAD AVENUE	2015	\$33	\$57

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
			Winters Total		\$110	\$152
City of Woodland						
YOL15230/15231	Bicycle/Pedestrian	VARIOUS	WOODLAND BIKEWAY PROJECT, PHASES 1 & 2	1996	\$194	\$194
YOL15601	Bicycle/Pedestrian	EAST ST/EAST MAIN ST	BUILD CLASS I BIKEWAY & LANDSCAPE BETW CAL NORTHERN RR & EAST ST (PHASE 1)	1997	\$255	\$263
YOL15232	Bicycle/Pedestrian	VARIOUS	WOODLAND BIKEWAY PROJECT--BIKEWAYS, HAZARD ELIMINATION	1999	\$128	\$140
YOL15460	Bicycle/Pedestrian	WEST STREET	WEST STREET BICYCLE PROJECT FROM CROSS STREET TO EL DORADO	2015	\$4	\$7
YOL15470	Bicycle/Pedestrian	WEST STREET	WEST STREET BICYCLE PROJECT FROM EL DORADO TO SOUTHERN CITY LIMITS	2015	\$1	\$1
YOL15830	Intersection	TWO INTERSECTIONS	SIGNAL IMPROVEMENTS AT COUNTY ROAD 98@MAIN, WEST ST@KENTUCKY AVE	1997	\$260	\$268
YOL15620	Road Widen	EAST MAIN STREET	WIDEN FROM 4 TO 6 LANES FROM MATMOR RD TO COUNTY RD 101	2000	\$710	\$799
YOL15640	Road Widen	COUNTY ROAD 102	WIDEN FROM 2 TO 4 LANES FROM GIBSON RD TO MAIN ST	2000	\$2,282	\$2,570
YOL15410	Transit Capital	VARIOUS	MOVE RR SWITCHING ACTIVITY FROM COMMERCIAL AREAS TO INDUSTRIAL AREA	1996	\$143	\$143
YOL15750	TSM/TDM	WEST STREET	MODIFY 4 SIGNALIZED INTERSECTIONS @ COURT, MAIN, LINCOLN, AND CROSS STS	1996	\$81	\$81
			Woodland Total		\$4,058	\$4,466
Yolo County						
YOL15480	Bicycle/Pedestrian	COUNTY ROAD 32	WIDEN FOR CLASS II BIKEWAYS FROM COUNTY ROAD 91A TO COUNTY ROAD 93A	1997	\$1,000	\$1,030
YOL15440	Bicycle/Pedestrian	COUNTY ROAD 99	WIDEN FOR CLASS II BIKEWAYS FROM COUNTY ROAD 27 TO COUNTY ROAD 31	1999	\$850	\$929
YOL15450	Bicycle/Pedestrian	COUNTY ROAD 99	WIDEN FOR CLASS II BIKEWAYS FROM WOODLAND CITY LIMITS TO COUNTY ROAD 27	1999	\$80	\$87
YOL15550	Bicycle/Pedestrian	COUNTY ROAD 99	ADD BICYCLE LANE AND BICYCLE SAFETY IMPROVEMENTS	1999	\$2,000	\$2,186
YOL15510	Bicycle/Pedestrian	COUNTY ROAD 32A	WIDEN FOR CLASS II BIKEWAYS FROM MACE BLVD TO COUNTY ROAD 105	2015	\$250	\$439
YOL15290	Bridge Replacement	COUNTY ROAD 89	UNION SCHOOL SLOUGH BRIDGE 22C-30--REPLACEMENT	1996	\$211	\$211
YOL15280	Bridge Replacement	COUNTY ROAD 102	BRIDGE REPLACEMENT AT WILLOW SLOUGH BYPASS	1997	\$1,620	\$1,669
YOL15700	Plan/Study	VARIOUS	PARTICULATE MATTER REDUCTION PROGRAM	1996	\$580	\$580
YOL15850	Safety	W. CROSS @ CALIFORNIA ST	REALIGN ROAD FOR SAFETY IMPROVEMENTS	1997	\$310	\$319
YOL15430	Soundwalls	I-80	BUILD SOUNDWALLS FROM 0.1 MI EAST OF YOLO CAUSEWAY TO 0.1 MI WEST OF 50/80	2015	\$667	\$1,170
			Yolo County Total		\$7,568	\$8,620
Yolo County Transit Authority						
YCT10000	Transit Capital	GENERAL	RETROFIT YOLOBUS FLEET FOR ADA	1996	\$29	\$29
YCT10040	Transit Capital	GENERAL	BUY & FULLY EQUIP BUSES TO REPLACE EXISTING DIESEL BUSES	1996	\$4,358	\$4,358
YCT10110	Transit Capital	WOODLAND	BUY THREE 35-40 FOOT CNG BUSES TO REPLACE WOODLAND SERVICE BUSES	1996	\$930	\$930
YCT10160	Transit Capital	GENERAL	BUY NON-REVENUE VEHICLE (REPLACEMENT)	1996	\$20	\$20
YCT10180	Transit Capital	VARIOUS	INSTALL 32 BIKE RACKS ON BUSES AND 35 BIKE RACKS AT BUS STOPS IN YOLO COUNTY	1996	\$34	\$34
YCT10210	Transit Capital	GENERAL	BUY 8 NEW BUSES	1996	\$2,000	\$2,000

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YOL10080	Transit Capital	WEST SACRAMENTO	DIAL-A-LIFT EXPANSION VEHICLE: BUY AN 18-20 PASSENGER ADA-ACCESSIBLE VEHICLE	1996	\$60	\$60
YCT10050	Transit Capital	GENERAL	BUY REPLACEMENT BUS	1998	\$351	\$372
YCT10240	Transit Capital	WEST SACRAMENTO	BUY 4 NEW BUSES FOR WEST SACRAMENTO SERVICE	1999	\$1,000	\$1,093
YCT10260	Transit Capital	VARIOUS	BUILD 30 BUS SHELTERS	1999	\$200	\$219
YCT10250	Transit Capital	YCTA	BUY 39 NEW BUSES FOR EXPANDED SERVICE COUNTYWIDE	2010	\$12,000	\$18,156
			YCTA Total		\$20,982	\$27,271
Caltrans, Within Yolo County						
CAL16040	Enhancement	VARIOUS	HISTORIC BRIDGE SIGNING	2015	\$2	\$4
CAL16330	HOV Lane	I-80	BUILD CARPOOL LANE FROM RICHARDS BLVD (DAVIS) TO 50/I-80 SPLIT IN WEST SAC	2010	\$37,000	\$55,981
CAL15840	Interchange Modify	ROUTE 50	WIDEN HARBOR BLVD OVERCROSSING FROM 4 TO 6 LANES AND REVISE RAMPS	2006	\$14,412	\$19,370
CAL15890	Interchange Modify	I-5	WIDEN INTERCHANGE AT COUNTY ROAD 102	1999	\$7,453	\$8,146
CAL15860	Interchange Modify	I-80	WIDEN ENTERPRISE BLVD INTERCHANGE FROM 2 TO 4 LANES	1997	\$6,604	\$6,802
CAL15800	Interchange Modify	MACE BLVD INTERCHANGE	WIDEN MACE BLVD OC TO 6 LANES (DUAL TURN LANES & BIKE LANES), REVISE RAMPS	1998	\$14,200	\$15,066
CAL15830	Interchange Modify	ROUTE 50	WIDEN JEFFERSON BLVD IC FROM 1 TO 2 LANES, ADD RAMP METERS AND TURN LANES	1997	\$11,500	\$11,845
CAL15880	Interchange Modify	ROUTE 113	BUILD FREEWAY CONNECTION TO I-5	2010	\$30,000	\$45,390
CAL15881	Plan/Study	ROUTE 113	PROJECT STUDY REPORT FOR FREEWAY CONNECTION TO I-5	1996	\$600	\$600
CAL15870	Road Widen	ROUTE 128	WIDEN FROM I-505 TO DRY CREEK BRIDGE	1999	\$300	\$328
CAL15790	Road Widen	ROUTE 50	WIDEN FROM JEFFERSON BLVD TO PIONEER BRIDGE	2015	\$10,000	\$17,540
CAL16380	Road Widen	ROUTE 84	WIDEN FROM 2 TO 4 LANES FROM MARSHALL RD TO RT 50, INCL. BARGE CANAL BRIDGE	2002	\$24,322	\$29,040
CAL16070	Safety	ROUTE 50	JEFFERSON BLVD INTERCHANGE--INSTALL SIGNAL, MINOR GEOMETRIC CHANGES	1998	\$450	\$477
CAL16880	TSM/TDM	ROUTE 50	YOLO COUNTY PORTION OF CALTRANS' ROUTE 50 TRAFFIC OPERATIONS SYSTEM	2000	\$480	\$540
CAL16890	TSM/TDM	I-5	YOLO COUNTY PORTION OF CALTRANS' I-5 TRAFFIC OPERATIONS SYSTEM	2005	\$120	\$157
CAL10530	TSM/TDM	ROUTE 50	YOLO COUNTY PORTION OF CALTRANS' TRAFFIC OPERATIONS SYSTEM FOR ROUTE 50	2015	\$600	\$1,052
			Caltrans Total		\$158,043	\$212,339
Yuba County Jurisdictions						
City of Marysville						
YUB15250	Bicycle/Pedestrian	22ND STREET	22ND STREET BICYCLE PROJECT FROM RAMIREZ TO STATE ROUTE 20	2015	\$5	\$10
Yuba County						
YUB15110	Bicycle/Pedestrian	N BEALE RD/LINDHURST AVE	LINDA PEDESTRIAN PATH. 3 MILES SIDEWALKS, LANDSCAPING, RETAINING WALLS	1997	\$453	\$467
YUB15210	Bicycle/Pedestrian	5TH STREET	5TH STREET BRIDGE BICYCLE PROJECT	2015	\$310	\$530
YUB15270	Bicycle/Pedestrian		CAMPTONVILLE BICYCLE PROJECTS	2015	\$85	\$150

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
YUB15330	Intersection	FEATHER RIVER BOULEVARD	MODIFY INTERSECTION ROUTE 70 AND FEATHER RIVER BOULEVARD	1999	\$500	\$547
YUB15340	Road New	FOREST HIGHWAY 105	BUILD DOBINS BYPASS	1998	\$4,150	\$4,403
YUB15320	Road Widen	OLIVEHURST AVENUE	WIDEN AND RECONSTRUCT OLIVEHURST AVENUE FROM POWERLINE TO 8TH STREET	1999	\$750	\$820
FLP10001	Safety	FOREST HIGHWAY 120	SAFETY PROJECT AT THE LOCATION OF THE YOUNG LIFE OF WOODLEAF SCHOOL	1996	\$200	\$200
			Yuba County Total		\$6,448	\$7,116
Caltrans, Within Yuba County						
CAL10820	Bridge New	ROUTE 65	BUILD SOUTHERN RIVER CROSSING (3RD BRIDGE OVER FEATHER RIVER)	2010	\$102,000	\$154,326
CAL10780	Rail Crossing	VARIOUS LOCATIONS	RAIL HIGHWAY CROSSINGS AND PROTECTIVE DEVICES--LUMP SUM LISTING 1993-1999	1999	\$1,495	\$1,495
CAL15941	Right-of-Way	ROUTE 70	BUY RIGHT OF WAY FOR MARYSVILLE BYPASS, FROM RT 65/70 TO 0.5 MI N. OF ELLIS RD	2006	\$2,200	\$2,957
CAL15921	Road Widen	ROUTE 70	EXPRESSWAY WIDENING: 0.6 MI N. OF BEAR RIVER TO 0.3 MI S. OF MCGOWAN PKWY	2000	\$40,000	\$45,040
CAL15950	Road Widen	ROUTE 70	B STREET UNDERPASS	2010	\$7,000	\$10,591
CAL15960	Road Widen	ROUTE 70	E STREET AND APPROACHES TO BRIDGES	2010	\$3,000	\$4,500
			Caltrans Total		\$155,695	\$218,909
El Dorado County Jurisdictions						
El Dorado County						
ELD15530	Bicycle/Pedestrian	PLACERVILLE DRIVE	WIDEN TO IMPROVED 2 LANES WITH LEFT TURN POCKETS FROM FORNI RD IC TO RT 50	1996	\$2,000	\$2,000
ELD10020	Bicycle/Pedestrian	EL DORADO BIKE TRAIL	CONSTRUCT CLASS 1 BIKE TRAIL CROSSING AT ROUTE 50	1997	\$791	\$815
ELD15600	Bicycle/Pedestrian	PLACERVILLE DRIVE	BUILD CLASS 1 BIKE PATH PARALLEL TO PLACERVILLE DR, BETW RT 50 AND RAY LAWYER	1997	\$282	\$290
ELD10070	Bicycle/Pedestrian	FRANCISCO DRIVE	BUILD CLASS 1 BIKEWAY FROM GREEN VALLEY ROAD TO EL DORADO HILLS BLVD	1998	\$100	\$106
ELD15390	Bicycle/Pedestrian	GEORGETOWN-BUFFALO HILLS	BUILD BIKE PATH (RT 193 RIGHT OF WAY BETW GEORGETOWN & BUFFALO HILLS CENTER)	1998	\$78	\$83
ELD15400	Bicycle/Pedestrian	EL DORADO HILLS BIKE PATH	BUILD CLASS 1 BIKEWAY PARALLEL TO EL D. HILLS BLVD BETW HARVARD & FRANCISCO	1998	\$235	\$249
ELD15420	Bridge Replacement	GARDEN VALLEY ROAD	REPLACE BRIDGE AT IRISH CREEK	1996	\$202	\$202
ELD15430	Bridge Replacement	BRIDGEPORT SCHOOL ROAD	REPLACE BRIDGE AT CEDAR CREEK	1997	\$711	\$732
ELD15440	Bridge Replacement	GREEN VALLEY ROAD	REPLACE BRIDGE AT DRY CREEK	1998	\$1,296	\$1,375
ELD15140	Interchange Modify	ROUTE 50	WIDEN WB OFF RAMP AT EL DORADO HILLS	2000	\$500	\$563
ELD15450	Right-of-Way	SP PLACERVILLE BRANCH LN	BUY RIGHT-OF-WAY FROM SOUTHERN PACIFIC FOR PLACERVILLE BRANCH	1996	\$2,100	\$2,100
ELD15350	Road New	SARATOGA	BUILD NEW 2-LANE ROAD FROM ARROWHEAD TO PARK	1996	\$2,200	\$2,200
ELD15570	Road New	WILD CHAPARRAL/PALMER	BUILD NEW 2 LANE ROAD FROM WILD CHAPARRAL TO PALMER DRIVE	1996	\$1,800	\$1,800
ELD15360	Road New	SILVA VALLEY PARKWAY	BUILD NEW 2-LANE ROAD FROM SERRANO TO ROUTE 50	1997	\$1,200	\$1,236
ELD15580	Road New	SERRANO ROAD	BUILD NEW 2-LANE ROAD FROM COUNTRY CLUB TO BASS LAKE ROAD	1997	\$500	\$515
ELD15210	Road Widen	LATROBE ROAD	WIDEN FROM 2 TO 4 LANES FROM US 50 TO WHITE ROCK ROAD	1996	\$800	\$800
ELD15100	Road Widen	EL DORADO HILLS BLVD	WIDEN FROM 5 TO 6 LANES FROM PARK TO ROUTE 50	1997	\$340	\$350
ELD15150	Road Widen	GREEN VALLEY ROAD	WIDEN 2 TO 4 LANES FROM SACRAMENTO COUNTY LINE TO FRANCISCO	1997	\$3,900	\$4,017

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
ELD15370	Road Widen	WHITE ROCK ROAD	WIDEN FROM 2 TO 4 LANES FROM LATROBE ROAD TO ROUTE 50	1997	\$2,800	\$2,884
ELD10090	Road Widen	WHITE ROCK ROAD	WIDEN FROM 2 TO 4 LANES FROM SACRAMENTO COUNTY LINE TO LATROBE ROAD	1998	\$2,600	\$2,759
ELD15240	Road Widen	MISSOURI FLAT ROAD	WIDEN FROM 2 TO 4 LANES FROM US 50 TO CHINA GARDEN ROAD	1998	\$3,900	\$4,138
ELD15110	Road Widen	EL DORADO HILLS BLVD	WIDEN FROM 4 TO 6 LANES AT ROUTE 50	1999	\$8,800	\$9,618
ELD15130	Road Widen	EL DORADO HILLS BLVD	WIDEN FROM 2 TO 4 LANES FROM GREEN VALLEY ROAD TO HARVARD	1999	\$1,400	\$1,530
ELD15160	Road Widen	GREEN VALLEY ROAD	WIDEN FROM 2 TO 4 LANES FROM FRANCISCO TO SALMON FALLS	1999	\$900	\$984
ELD15220	Road Widen	LATROBE ROAD	WIDEN FROM 2 TO 4 LANES FROM WHITE ROCK ROAD TO GOLDEN FOOTHILL	1999	\$400	\$437
ELD15080	Road Widen	DUROCK ROAD	WIDEN FROM 2 TO 4 LANES, FROM SHINGLE LIME ROAD TO RODEO	2000	\$1,500	\$1,689
ELD15170	Road Widen	GREEN VALLEY ROAD	WIDEN FROM 2 TO 4 LANES FROM SALMON FALLS TO SILVA VALLEY	2000	\$400	\$450
ELD15230	Road Widen	LATROBE ROAD	WIDEN FROM 2 TO 4 LANES FROM GOLDEN FOOTHILLS N. TO GOLDEN FOOTHILLS S.	2000	\$900	\$1,013
ELD15540	Road Widen	CAMBRIDGE ROAD	WIDEN FROM 2 TO 4 LANES FROM ROUTE 50 TO COUNTRY CLUB	2000	\$500	\$563
ELD15550	Road Widen	NORTH SHINGLE ROAD	WIDEN FROM 2 TO 4 LANES FROM ROUTE 50 TO PONDEROSA ROAD	2000	\$300	\$338
ELD15560	Road Widen	SOUTH SHINGLE ROAD	WIDEN FROM 2 TO 4 LANES FROM ROUTE 50 TO DUROCK ROAD	2000	\$300	\$338
ELD10080	Road Widen	SILVA VALLEY PARKWAY	WIDEN FROM 2 TO 4 LANES FROM HARVARD TO GREEN VALLEY ROAD	2001	\$1,400	\$1,623
ELD15040	Road Widen	CAMERON PARK DRIVE	WIDEN FROM 2 TO 4 LANES FROM SUDBURY TO GREEN VALLEY (4 SEGMENTS)	2001	\$4,800	\$5,563
ELD15250	Road Widen	MISSOURI FLAT ROAD	WIDEN FROM 2 TO 4 LANES FROM HEADINGTON ROAD TO ROUTE 50	2001	\$500	\$580
ELD15260	Road Widen	MOTHER LODE DRIVE	WIDEN FROM 2 TO 4 LANES FROM FRENCH CREEK TO PLEASANT VALLEY	2001	\$4,700	\$5,447
ELD15270	Road Widen	MOTHER LODE DRIVE	WIDEN FROM 2 TO 4 LANES FROM SOUTH SHINGLE TO FRENCH CREEK ROAD	2001	\$1,000	\$1,159
ELD15050	Road Widen	CAMERON PARK DRIVE	WIDEN FROM 2 TO 4 LANES FROM COUNTRY CLUB TO SUDBURY	2002	\$1,300	\$1,552
ELD10000	Transit Capital	VARIOUS	BUY 40+ PASSENGER BUS FOR COMMUTE SERVICE TO SACRAMENTO	1996	\$280	\$280
ELD10010	TSM/TDM	LATROBE @ WHITE ROCK RD	BUILD MULTI-MODAL TRANSFER SITE FOR BIKE, PED, TRANSIT, AND AUTO USERS	1996	\$1,800	\$1,800
ELD10040	TSM/TDM	VARIOUS	TRIP REDUCTION PROGRAM DATABASE, ATIS PROJECT ASSIST., VANPOOL PROGRAM	1996	\$200	\$200
			El Dorado County Total		\$59,715	\$64,379
Caltrans, Within El Dorado County						
CAL16080	Bridge Restoration	VARIOUS LOCATIONS	HISTORIC BRIDGE SIGNING	1996	\$5	\$5
CAL16110	Interchange Modify	ROUTE 50	REVISE EL DORADO HILLS BLVD INTERCHANGE, BUILD EASTBOUND OFF-RAMP	1999	\$5,000	\$5,465
CAL16152	Interchange New	ROUTE 50	RAY LAWYER DRIVE INTERCHANGE-BUY ALL RIGHT OF WAY, CONNECT FRONTAGE RD	1996	\$7,600	\$7,600
CAL16740	Interchange New	ROUTE 50	BUILD NEW INTERCHANGE AT SILVA VALLEY ROAD	2000	\$18,000	\$20,268
CAL16151	Interchange New	ROUTE 50	RAY LAWYER DRIVE INTERCHANGE-PRELIM ENGINEERING & ENVIRONMENTAL WORK	1996	\$2,891	\$2,891
CAL10600	Rail Crossing	VARIOUS	RAIL HIGHWAY CROSSINGS AND PROTECTIVE DEVICES-LUMP SUM LISTING 1993-1999	1999	\$73	\$79
CAL16161	Right-of-Way	ROUTE 50	BUY RIGHT OF WAY FOR UPGRADE TO FREEWAY FROM NEAR W PLACERVILLE TO CLAY	1996	\$15,639	\$15,639
CAL16730	Road Widen	ROUTE 50	ADD CLIMBING LANE FROM SILVA VALLEY TO BASS LAKE ROAD	1999	\$1,000	\$1,093
CAL16162	TSM/TDM	ROUTE 50	CENTRAL PLACERVILLE TRAFFIC IMPROVEMENTS	2004	\$43,000	\$54,481
			Caltrans Total		\$93,208	\$107,521

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
Placer County Jurisdictions						
City of Auburn						
PLA16190	Rail New Station	AUBURN RAIL STATION	BUILD PASSENGER PLATFORM AND PROVIDE LANDSCAPING AT RAIL STATION.	1999	\$550	\$601
PLA16210	Road Widen	NEVADA STREET	WIDEN TO 3 LANES	1996	\$200	\$200
PCT10090	Transit Capital	CITY OF AUBURN	BUY 22-PASSENGER CNG BUS	1997	\$150	\$155
			Auburn Total		\$900	\$956
City of Colfax						
PLA16000	Transit Capital	COLFAX RAIL STATION	REHAB HISTORIC COLFAX TRAIN STATION BUILDING	1998	\$969	\$1,028
CAL16290	Transit Capital	COLFAX RAIL STATION	ADD PASSENGER PLATFORM AND PROVIDE LANDSCAPING AT RAIL STATION	1999	\$1,100	\$1,202
			Colfax Total		\$2,069	\$2,230
City of Lincoln						
PLA16290	Interchange New	SR 65	CONSTRUCT NEW INTERCHANGE AT EIGHT MILE ROAD	1996	\$9,800	\$9,800
PLA18610	Road New	8 MILE DRIVE	CONSTRUCT NEW 4 LANE ROAD FROM ROAD "F" TO ROAD "L" EAST	1996	\$5,400	\$5,400
PLA18620	Road New	8 MILE DRIVE	CONSTRUCT NEW 2 LANE ROAD FROM ROAD "L" EAST TO 12 BRIDGES DRIVE	1996	\$5,700	\$5,700
PLA18630	Road New	8 MILE DRIVE	CONSTRUCT NEW 6 LANE ROAD FROM INTERCHANGE TO ROAD "F"	1996	\$1,027	\$1,027
PLA19040	Road New	WESTLAKE BOULEVARD	CONSTRUCT NEW 4 LANE ROAD FROM LINCOLN PARKWAY TO ROUTE 65	1996	\$445	\$445
PLA18670	Road New	EASTLAKE BOULEVARD	CONSTRUCT NEW 4 LANE ROAD FROM STATE ROUTE 65 TO HEMPHILL BOULEVARD	1997	\$214	\$220
PLA18680	Road New	EASTLAKE BOULEVARD	CONSTRUCT NEW 4 LANE ROAD FROM 8 MILES EAST OF ROUTE 65 TO ROUTE 193	1997	\$356	\$367
PLA18690	Road New	EASTLAKE BOULEVARD	CONSTRUCT NEW 4 LANE ROAD FROM HEMPHILL BLVD TO 8 MILES EAST OF ROUTE 65	1997	\$563	\$580
PLA18740	Road New	LAKESIDE DRIVE	CONSTRUCT NEW 2 LANE ROAD FROM NICOLAUS ROAD TO AIRPARK DRIVE	1997	\$415	\$427
PLA18750	Road New	LINCOLN PARKWAY	CONSTRUCT NEW 4 LANE ROAD FROM WESTLAKE BOULEVARD TO SP OVERCROSSING	1997	\$270	\$278
PLA18770	Road New	LINCOLN PARKWAY	CONSTRUCT NEW 4 LANE ROAD FROM REALIGNED RT 65 TO EASTRIDGE PARKWAY	1997	\$92	\$95
PLA18780	Road New	LINCOLN PARKWAY	CONSTRUCT NEW 2 LANE ROAD FROM EASTRIDGE PARKWAY TO 8 MILE DRIVE	1997	\$350	\$361
PLA18860	Road New	LINCOLN PARKWAY	CONSTRUCT 2 LANE ROAD FROM 8 MILE DRIVE TO CITY LIMITS	1997	\$493	\$508
PLA18890	Road New	LINCOLN PARKWAY	CONSTRUCT NEW 4 LANE ROAD FROM MOORE ROAD TO WESTLAKE BOULEVARD	1997	\$337	\$347
PLA19010	Road New	WEST 8 MILE DRIVE	CONSTRUCT NEW 2 LANE ROAD FROM STATE ROUTE 65 TO INDUSTRIAL	1997	\$300	\$309
PLA18800	Road New	LINCOLN PARKWAY	CONSTRUCT 2 LANE ROAD FROM NORTH 8 MILE DRIVE TO SOUTH 8 MILE DRIVE	1998	\$441	\$468
PLA18990	Road New	TWELVE BRIDGES	CONSTRUCT NEW 2 LANE ROAD FROM SIERRA COLLEGE BOULEVARD TO 8 MILE DRIVE	2000	\$3,185	\$3,586
PLA18640	Road New	8 MILE DRIVE	CONSTRUCT NEW 4 LANE ROAD FROM 12 BRIDGES DRIVE TO LINCOLN PARKWAY	2005	\$11,300	\$14,747
PLA18940	Road New	ROAD "F"	CONSTRUCT NEW 2 LANE ROAD FROM LINCOLN PARKWAY TO 8 MILE DRIVE	2005	\$2,700	\$3,524
PLA19060	Road New	ROUTE 65	CONSTRUCT 2-LANE LINCOLN BYPASS W/ PARTIAL INTERCHANGE AT INDUSTRIAL BLVD.	2005	\$30,200	\$39,411
PLA19030	Road New	WESTLAKE BOULEVARD	CONSTRUCT NEW 4 LANE ROAD FROM STATE ROUTE 65 BYPASS TO LINCOLN PARKWAY	2010	\$713	\$1,078

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
PLA19050	Road New	WESTLAKE BOULEVARD	CONSTRUCT NEW 4 LANE ROAD FROM SOUTH LINCOLN CROSSING TO ROUTE 65 BYPASS	2015	\$89	\$156
PLA16280	Road Widen	SR 65	WIDEN FROM TWO TO FOUR LANES FOR ONE MILE AT 12 BRIDGES PROJECT	1996	\$3,700	\$3,700
PLA18950	Road Widen	STATE ROUTE 193	WIDEN FROM 2 TO 4 LANES FROM D STREET TO EASTLAKE BOULEVARD	1997	\$190	\$196
PLA18970	Road Widen	STATE ROUTE 65	WIDEN FROM 2 TO 4 LANES FROM WESTLAKEBOULEVARD TO INDUSTRIAL BOULEVARD	1997	\$5,100	\$5,253
PLA18980	Road Widen	STATE ROUTE 65	WIDEN FROM 2 TO 4 LANES FROM GLADDING TO WESTLAKE	1997	\$1,000	\$1,030
PLA18910	Road Widen	NICOLAUS ROAD	WIDEN FROM 2 TO 4 LANES FROM JOINER PARKWAY TO O STREET	2000	\$1,000	\$1,126
PLA18920	Road Widen	NICOLAUS ROAD	WIDEN FROM 2 TO 4 LANES FROM LAKESIDE TO JOINER PARKWAY	2000	\$750	\$845
PLA18650	Road Widen	AVIATION BOULEVARD	WIDEN FROM 2 TO 4 LANES FROM VENTURE TO AIRPARK DRIVE	2010	\$300	\$454
PLA18730	Road Widen	LAKESIDE DRIVE	WIDEN FROM 2 TO 4 LANES FROM NICOLAUS ROAD TO AIRPARK DRIVE	2010	\$307	\$464
PLA18790	Road Widen	LINCOLN PARKWAY	WIDEN FROM 2 TO 4 LANES FROM EASTRIDGE PARKWAY TO 8 MILE DRIVE	2010	\$260	\$393
PLA18810	Road Widen	LINCOLN PARKWAY	WIDEN FROM 2 TO 4 LANES FROM NORTH 8 MILE DRIVE	2010	\$326	\$493
PLA18880	Road Widen	LINCOLN PARKWAY	WIDEN FROM 2 TO 4 LANES FROM FIRST STREET TO MOORE ROAD	2010	\$865	\$1,308
PLA15970	Road Widen	NICHOLAUS ROAD	WIDEN FROM 2 TO 4 LANES FROM AIRPORT TO AVIATION BLVD	2010	\$2,000	\$3,026
PLA19000	Road Widen	TWELVE BRIDGES	WIDEN FROM 2 TO 4 LANES FROM SIERRA COLLEGE BOULEVARD TO 8 MILE DRIVE	2010	\$886	\$1,340
PLA18600	Road Widen	12TH STREET	WIDEN FROM 2 TO 4 LANES FROM EAST AVENUE TO HARRISON AVENUE	2015	\$293	\$513
PLA18660	Road Widen	EAST AVENUE	WIDEN FROM 2 TO 4 LANES FROM STATE ROUTE 193 TO 12TH STREET	2015	\$746	\$1,308
PLA18710	Road Widen	INDUSTRIAL BOULEVARD	WIDEN FROM 2 TO 4 LANES FROM STATE ROUTE 65 TO WEST 8 MILE DRIVE	2015	\$926	\$1,625
PLA18720	Road Widen	INDUSTRIAL BOULEVARD	WIDEN FROM 2 TO 4 LANES FROM WEST 8 MILE DRIVE TO ATHENS BOULEVARD	2015	\$741	\$1,300
PLA18760	Road Widen	LINCOLN PARKWAY	WIDEN FROM 4 TO 6 LANES FROM REALIGNED HIGHWAY 65 TO EASTRIDGE PARKWAY	2015	\$60	\$105
PLA18870	Road Widen	LINCOLN PARKWAY	WIDEN FROM 4 TO 6 LANES FROM SP OVERCROSSING TO REALIGNED HIGHWAY 65	2015	\$85	\$149
PLA18930	Road Widen	ROAD "F"	WIDEN FROM 2 TO 4 LANES FROM LINCOLN PARKWAY TO 8 MILE DRIVE	2015	\$420	\$736
PLA18960	Road Widen	STATE ROUTE 65	WIDEN FROM 4 TO 6 LANES FROM WESTLAKE BOULEVARD TO INDUSTRIAL BOULEVARD	2015	\$8,200	\$14,383
PLA19070	Road Widen	STATE ROUTE 65	LINCOLN BYPASS - 4 LANE BYPASS WITH FULL INTERCHANGE AT NELSON ROAD	2015	\$35,400	\$62,092
PLA19020	Road Widen	WEST 8 MILE DRIVE	WIDEN FROM 2 TO 4 LANES FROM STATE ROUTE 65 TO INDUSTRIAL	2015	\$205	\$359
PCT10100	Transit Capital	CITY OF LINCOLN	BUY 22-PASSENGER CNG BUS	1997	\$150	\$155
			Lincoln Total		\$138,297	\$191,185
Town of Loomis						
PLA16350	Road Widen	I-80	WIDEN HORSESHOE BAR OVERCROSSING FROM 2 TO 4 LANES, IMPROVE RAMPS	2010	\$5,700	\$8,624
PLA15940	Road Widen	TAYLOR ROAD	WIDEN FROM HORSESHOE BAR ROAD TO KING ROAD	2010	\$450	\$681
PLA19100	Transit Capital	I-80 CORRIDOR	I-80 CORRIDOR COMMUTER RAIL STATION IMPROVEMENTS	2013	\$500	\$827
PLA19090	Transit Capital	I-80 CORRIDOR	BUILD PLATFORM AT LOOMIS STATION FOR COMMUTER RAIL SERVICE	2013	\$550	\$909
			Loomis		\$7,200	\$11,041

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
Town of Newcastle						
PLA19110	Rail New Station	I-80 CORRIDOR	I-80 CORRIDOR COMMUTER RAIL PLATFORM CONSTRUCTION	2013	\$550	\$909
PLA19120	Rail New Station	I-80 CORRIDOR	I-80 CORRIDOR COMMUTER RAIL STATION IMPROVEMENTS	2013	\$500	\$827
			Newcastle Total		\$1,050	\$1,736
Placer County						
PLA17570	Bicycle/Pedestrian	TAYLOR & OPHIR BIKELANES	BIKEWAY FROM TOWN OF LOOMIS TO SR 193	1996	\$336	\$336
PLA17050	Bicycle/Pedestrian	LUTHER ROAD	SHOULDERS/BIKELANE FROM BOWMAN TO SR 49	1998	\$2,180	\$2,313
PLA18580	Other	PLACER COUNTY	CONSTRUCT CNG FUELING FACILITIES FOR COUNTY AND ROSEVILLE BUSES	1997	\$400	\$412
PLA19130	Rail New Station	I-80 CORRIDOR	I-80 CORRIDOR COMMUTER RAIL PLATFORM CONSTRUCTION	2013	\$550	\$909
PCT10000	Rail New Station	VARIOUS	COMMUTER RAIL COMMUTER RAIL STATIONS IN AUBURN, NEWCASTLE, LOOMIS	2015	\$2,870	\$5,034
FLP10045	Right-of-Way	FOREST HWY 124	BUY RIGHT OF WAY FOR 2-LANE ROAD FROM DRIVERS FLAT TO POND AVENUE	1997	\$1,500	\$1,545
PLA15210	Road New	EUREKA CONNECTOR	CONSTRUCT AS 3-LANE ROAD FROM EUREKA ROAD TO ROSEVILLE PKWY	1997	\$580	\$597
PLA15320	Road New	PROFESSIONAL DRIVE	CONSTRUCT AS 2-LANE ROAD FROM BELL ROAD TO ATWOOD ROAD	1997	\$301	\$310
PLA15340	Road New	QUARTZ DRIVE	CONSTRUCT AS 2-LANE ROAD TO RICHARDSON DRIVE	1997	\$158	\$163
PLA15440	Road New	WILLOWCREEK DRIVE	CONSTRUCT 2-LANE ROAD FROM SR 49 TO DEWITT	1997	\$592	\$610
PLA15140	Road New	CAVITT-STALLMAN	EXTENSION FROM BOWMAN PLACE SOUTH TO DOUGLAS BLVD	1998	\$290	\$308
PLA15160	Road New	COOK-RIOLO	CONSTRUCT AS 2-LANE ROAD, FROM SACRAMENTO COUNTY LINE TO PFE ROAD	1998	\$170	\$180
PLA15360	Road New	RICHARDSON DRIVE	CONSTRUCT AS 2-LANE ROAD FROM DRY CREEK ROAD TO BELL ROAD	1998	\$554	\$588
PLA15200	Road New	EDUCATION STREET	CONSTRUCT AS 2-LANE ROAD FROM BLUE OAKS TO RICHARDSON DRIVE	2000	\$127	\$143
PLA15330	Road New	QUARTZ DRIVE	CONSTRUCT AS 2-LANE ROAD FROM SR 49, SOUTHEAST TO BELL ROAD	2000	\$404	\$455
PLA15150	Road New	CHRISTIAN VALLEY ROAD	EXTENSION TO SR 49 ALONG FLORENCE DR.	2005	\$507	\$662
PLA15170	Road New	DON JULIO BLVD	CONSTRUCT AS 2-LANE ROAD FROM SACRAMENTO COUNTY LINE TO PFE ROAD	2005	\$170	\$222
PLA15230	Road New	GALENA DRIVE	CONSTRUCT AS 2-LANE ROAD FROM QUARTZ DRIVE TO EDUCATION STREET	2005	\$158	\$206
PLA15350	Road New	RICHARDSON DRIVE	CONSTRUCT AS 2-LANE ROAD FROM ATWOOD ROAD TO MT. VERNON ROAD	2005	\$1,160	\$1,514
PLA15120	Road New	BILL FRANCIS DRIVE	EXTENSION FROM NEW AIRPORT ROAD TO OLD AIRPORT ROAD, AS A 2-LANE ROAD	2010	\$333	\$504
PLA18390	Road New	DYER LANE	CONSTRUCT AS 2-LANE ROAD FROM 16TH STREET TO WATT AVENUE	2010	\$200	\$303
PLA15220	Road New	FOOTHILLS BLVD	CITY OF ROSEVILLE TO ATHENS ROAD	2015	\$1,600	\$2,806
PLA18420	Road New	FOOTHILLS BLVD	CONSTRUCT AS 2-LANE ROAD FROM ATHENS ROAD TO THE CITY OF LINCOLN	2015	\$1,600	\$2,806
PLA15300	Road New	PARALLEL ROAD	CONSTRUCT AS 2-LANE ROAD FROM DRY CREEK RD TO QUARTZ RD, E OF SR 49	2015	\$475	\$833
PLA15370	Road New	ROCKLIN ROAD EXTENSION	CONSTRUCT AS 2-LANE ROAD FROM BARTON ROAD TO AUBURN/FOLSOM ROAD	2015	\$3,100	\$5,437
PLA17360	Road Widen	PLACER HILLS ROAD	WIDEN TO THREE LANES FROM I-80 TO COMBIE RD	1997	\$5,353	\$5,514
PLA18500	Road Widen	RICHARDSON DRIVE	WIDEN AND REALIGN BETWEEN ATWOOD ROAD AND BELL ROAD	1997	\$550	\$567
PLA15080	Road Widen	AUBURN/FOLSOM ROAD	SACRAMENTO COUNTY TO JOE RODGERS ROAD--WIDEN TO 4 LANES	1998	\$6,200	\$6,578
PLA15090	Road Widen	BASELINE ROAD	FIDDYMENT TO COOK-RIOLO -- WIDEN TO 4 LANES.	1998	\$715	\$759

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
PLA15110	Road Widen	BELL ROAD	I-80 TO RICHARDSON DRIVE – WIDEN TO 4 LANES	1998	\$2,700	\$2,865
PLA15250	Road Widen	LUTHER ROAD	ADD SHOULDERS, BIKE LANE, AND THROUGH LANES FROM BOWMAN ROAD TO SR 49	1998	\$2,180	\$2,313
PLA15130	Road Widen	BOWMAN UNDERCROSSING	BOWMAN ROAD TO LINCOLN WAY – WIDEN TO 4 LANES	2000	\$100	\$113
PLA15070	Road Widen	I-80	WIDEN THE AUBURN RAVINE ROAD OVERCROSSING OF I-80	2000	\$1,875	\$2,111
PLA15280	Road Widen	OLD AUBURN ROAD	WIDEN TO 4 LANES FROM SIERRA COLLEGE TO CITY OF ROSEVILLE	2000	\$350	\$394
PLA15420	Road Widen	WALERGA ROAD	WIDEN TO 4 LANES FROM BASELINE ROAD TO SACRAMENTO COUNTY LINE	2000	\$4,140	\$4,662
PLA15270	Road Widen	NORTH ANTELOPE ROAD	WIDEN TO 4 LANES FROM SACRAMENTO COUNTY LINE TO PFE ROAD	2005	\$187	\$244
PLA18490	Road Widen	PFE ROAD	WIDEN 2 TO 4 AND REALIGN FROM WATT AVENUE TO WALERGA ROAD	2005	\$563	\$735
PLA18450	Road Widen	INDIAN HILL ROAD	WIDEN TO 4 LANES FROM AUBURN-FOLSOM ROAD TO NEWCASTLE	2010	\$3,336	\$5,047
PLA15380	Road Widen	SIERRA COLLEGE BLVD	SACRAMENTO CO. LINE TO DOUGLAS BLVD.	2010	\$3,600	\$5,447
PLA15400	Road Widen	SIERRA COLLEGE BLVD	WIDEN TO 6 LANES FROM TAYLOR ROAD TO SOUTH ROCKLIN CITY LIMITS	2010	\$3,600	\$5,447
PLA15100	Road Widen	BASELINE ROAD	SUTTER CO TO FIDDYMENT ROAD – WIDEN TO 4 LANES	2015	\$4,530	\$7,946
PLA16830	Road Widen	DOUGLAS BLVD.	WIDEN TO 6 LANES, FROM SIERRA COLLEGE BLVD. TO AUBURN-FOLSOM ROAD	2015	\$1,500	\$2,631
PLA15180	Road Widen	EAST ROSEVILLE PARKWAY	WIDEN TO 4 LANES FROM BARTON ROAD TO SIERRA COLLEGE BLVD	2015	\$868	\$1,522
PLA18460	Road Widen	INDUSTRIAL AVENUE	WIDEN TO 4 LANES, FROM SUNSET ROAD TO ATHENS ROAD	2015	\$1,000	\$1,754
PLA15240	Road Widen	LINCOLN WAY	WIDEN TO 4 LANES FROM RUSSELL ROAD TO FERGUSON	2015	\$328	\$575
PLA18470	Road Widen	LINCOLN WAY	WIDEN TO 4 LANES FROM SILVER BEND TO SYLVAN VISTA	2015	\$240	\$421
PLA15310	Road Widen	PFE ROAD	WIDEN TO 6 LANES FROM NORTH ANTELOPE TO CITY OF ROSEVILLE	2015	\$364	\$638
PLA15390	Road Widen	SIERRA COLLEGE BLVD	WIDEN TO 4 LANES FROM SR193 TO TAYLOR RD	2015	\$4,400	\$7,718
PLA15410	Road Widen	SUNSET BLVD	WIDEN AND EXTEND TO 4 LANES FROM SR 65 TO FIDDYMENT ROAD	2015	\$3,200	\$5,613
PCT10080	Transit Capital	CTSA OF PLACER, INC	BUY 3 SMALL REPLACEMENT BUSES FOR CTSA OF PLACER COUNTY	1997	\$172	\$177
PCT10050	Transit Capital	PLACER COUNTY	TRANSIT: NATURAL GAS FUELING FACILITY	2010	\$1,250	\$1,891
PLA19080	Transit Capital	I-80 CORRIDOR	I-80 CORRIDOR COMMUTER RAIL ROLLING STOCK PURCHASE	2013	\$22,000	\$34,276
PLA19140	Transit Capital	I-80 CORRIDOR	I-80 CORRIDOR COMMUTER RAIL STATION IMPROVEMENTS	2013	\$500	\$827
PLA19150	Transit Capital	I-80 CORRIDOR	I-80 CORRIDOR COMMUTER TRACK IMPROVEMENTS	2013	\$1,750	\$2,893
PCT10010	Transit Capital	PLACER COUNTY	COMMUTER RAIL: COMMUTER ROLLING STOCK AND TRACK IMPROVEMENTS	2015	\$28,000	\$49,112
PLA16040	TSM/TDM	WEST PLACER COUNTY	PCTC TRANSPORTATION CONTROL MEASURE IMPLEMENTATION PROJECT	1996	\$770	\$770
PLA18370	TSM/TDM	VARIOUS	EXPAND PARK AND RIDE LOTS, ADDING TOTAL OF 65 NEW SPACES TO 3 LOTS	1997	\$60	\$62
PLA16070	TSM/TDM	WEST PLACER COUNTY	WESTERN PLACER COUNTY PARK AND RIDE LOT CONSTRUCTION PROGRAM	1999	\$1,688	\$1,845
			Placer County Total		\$128,384	\$192,661
City of Rocklin						
PLA17860	Bicycle/Pedestrian	B, SECOND & THIRD STS	CONSTRUCTION OF BIKELANES	1999	\$230	\$251
PLA15580	Interchange Modify	ROCKLIN ROAD	WIDEN ROCKLIN ROAD UNDERPASS (UNDER I-80) TO 6 LANES, ADDING TURN LANES	2000	\$3,500	\$3,941
PLA17780	Rail New Station	ROCKLIN RAIL STATION	BUILD PASSENGER PLATFORM AND PROVIDE LANDSCAPING AT RAIL STATION	2000	\$650	\$732

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
PLA17820	Road Maintenance	PACIFIC STREET	RECONSTRUCT ROAD DOWNTOWN	2015	\$2,000	\$3,508
PLA18300	Road New	LINCOLN PARKWAY	EXTEND LINCOLN PARKWAY ACROSS ROUTE 65, WITH A SIGNALIZED INTERSECTION	1997	\$85	\$88
PLA15520	Road Widen	PACIFIC STREET	ROCKLIN ROAD TO CEDAR	1996	\$2,400	\$2,400
PLA15510	Road Widen	PACIFIC STREET3	SUNSET BLVD TO ROCKLIN ROAD	1996	\$1,500	\$1,500
PLA15530	Road Widen	PACIFIC STREET	MIDAS TO LOOMIS TOWN LIMITS	2000	\$2,200	\$2,477
PLA15500	Road Widen	PACIFIC STREET3	ROSEVILLE CITY LIMIT TO SUNSET BLVD	2000	\$585	\$658
PLA15620	Road Widen	SUNSET BLVD	FROM TOPAZ TO PACIFIC STREET	2010	\$400	\$605
			Rocklin Total		\$13,549	\$16,160
City of Roseville						
PLA18000	Bicycle/Pedestrian	VARIOUS	BUILD BIKE LANES ALONG FOOTHILLS BLVD., JUNCTION BLVD., AND WASHINGTON BLVD	2000	\$325	\$366
PLA15710	Intersection	DOUGLAS @ SUNRISE	PHASE 1: AT-GRADE IMPROVEMENTS TO INTERSECTION	1996	\$3,500	\$3,500
PLA15711	Intersection	SUNRISE BOULEVARD	PHASE 2: MODIFY I-80/DOUGLAS IC, STRAIGHTEN CURVE ON SUNRISE NB APPROACH	2005	\$11,679	\$15,242
PLA15800	Road New	ROSEVILLE PARKWAY	FROM TAYLOR TO HARDING	2000	\$8,444	\$9,508
PLA15810	Road New	ROSEVILLE PARKWAY	FROM WASHINGTON TO FOOTHILLS	2010	\$3,881	\$5,871
PLA15690	Road Widen	CIRBY WAY	FROM SUNRISE BLVD. TO OAK RIDGE	1996	\$88	\$88
PLA17950	Road Widen	CIRBY WAY	WIDEN TO FIVE LANES FROM RIVERSIDE AVE TO REGENCY WAY	1996	\$35	\$35
PLA15910	Road Widen	TAYLOR RD	FROM EUREKA RD TO CITY LIMITS	1996	\$2,696	\$2,696
PLA15650	Road Widen	ATLANTIC STREET	FROM VERNON TO HARDING	2000	\$5,000	\$5,630
PLA15680	Road Widen	CIRBY WAY	FROM FOOTHILL TO RIVERSIDE	2000	\$3,383	\$3,809
PLA15700	Road Widen	CIRBY WAY	FROM REGENCY TO SUNRISE	2000	\$438	\$493
PLA15820	Road Widen	ROSEVILLE PARKWAY	FROM HARDING TO WASHINGTON	2000	\$1,440	\$1,621
PLA15830	Road Widen	ROSEVILLE PARKWAY	FROM CITY LIMITS TO SIERRA COLLEGE	2000	\$535	\$602
PLA15890	Road Widen	SUNRISE AVE	WIDEN 4 TO 6 LANES, FROM SAC COUNTY TO MADDEN LN.	2000	\$1,080	\$1,216
PLA15660	Road Widen	BASELINE ROAD	FROM CITY LIMITS TO FOOTHILL BL	2005	\$3,448	\$4,500
PLA15840	Road Widen	ROSEVILLE PARKWAY	FROM ROCKY RIDGE TO SUNRISE-INCLUDES BRODGE	2005	\$9,235	\$12,052
PLA15850	Road Widen	ROSEVILLE ROAD	FROM CITY LIMITS TO CIRBY WAY	2005	\$2,057	\$2,684
PLA15880	Road Widen	STANFORD RANCH RD	FROM SR65 TO ROCKLIN CITY LIMITS	2005	\$1,400	\$1,827
PLA15670	Road Widen	BLUE OAKS BLVD	FROM FOOTHILL TO WOODCREEK OAKS	2010	\$981	\$1,484
PLA15720	Road Widen	EUREKA BLVD.	FROM SIERRA COLLEGE TO CITY LIMITS	2010	\$339	\$513
PLA15730	Road Widen	FOOTHILLS BLVD.	FROM CIRBY TO PLEASANT GROVE	2010	\$100	\$151
PLA15740	Road Widen	HARDING BLVD	FROM BERRY TO ROSEVILLE	2010	\$200	\$303
PLA15750	Road Widen	INDUSTRIAL BLVD	FROM WASHINGTON TO CITY LIMITS	2010	\$2,268	\$3,431
PLA15760	Road Widen	PLEASANT GROVE BLVD	FROM WASHINGTON TO WOOD OAK CRK.	2010	\$2,191	\$3,315
PLA15770	Road Widen	PLEASANT GROVE BLVD	FROM ROSEVILLE PKWY TO RT 65	2010	\$907	\$1,372

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SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
PLA15780	Road Widen	PLEASANT GROVE BLVD	FROM RT 65 TO ROCKLIN CITY LIMITS	2010	\$535	\$810
PLA15790	Road Widen	PLEASANT GROVE BLVD	FROM WOOD OAK CRK TO FIDDYMENT	2010	\$446	\$675
PLA15900	Road Widen	S . CIRBY AVE	FROM ROCKY RIDGE TO CHAMPION	2010	\$274	\$415
PLA15600	Road Widen	SIERRA COLLEGE BLVD	SOUTH ROCKLIN CITY LIMITS TO DOUGLAS	2010	\$3,700	\$5,598
PLA15920	Road Widen	WASHINGTON BLVD.	FROM SAWTELL TO BLUE OAKS -INCLUDING ANDOVER UNDERCROSSING	2010	\$5,519	\$8,349
PLA18130	TSM/TDM	VARIOUS	INSTALL MONITORING SYSTEM ON TRAFFIC SIGNALS ON SEVERAL ARTERIALS	2000	\$260	\$293
			Roseville Total		\$76,383	\$98,450
Caltrans, Within Placer County						
CAL16400	Bridge Rehab/Repair	I-80	BRIDGE MODIFICATIONS AT KING RD, PENRYN RD, GILLARD RD, NEWCASTLE OC	2005	\$14,800	\$19,314
CAL16410	Bridge Rehab/Repair	I-80	BRIDGE MODIFICATIONS AT SIERRA COLLEGE BLVD, BRACE RD, HORSESHOE BAR RD	2005	\$11,200	\$14,616
CAL15320	Interchange Modify	ROUTE 65	BLUE OAKS BLVD IC: GRADE SEPARATION OF INTERCHANGE	2000	\$11,400	\$12,836
CAL16750	Interchange Modify	I-80	RAISE OVERCROSSING AT 7 INTERCHANGES	2010	\$26,000	\$39,338
CAL15300	Interchange Modify	I-80	ROCKLIN ROAD IC—MODIFY EXISTING RAMPS, SIGNALS AND RECHANNEL	2010	\$1,500	\$2,270
CAL15310	Interchange Modify	I-80	SIERRA COLLEGE BLVD IC	2010	\$9,000	\$13,617
CAL15260	Interchange New	ROUTE 65	BUILD NEW INTERCHANGE AT SUNSET BLVD	2005	\$4,700	\$6,134
CAL15330	Interchange New	ROUTE 65	PLEASANT GROVE IC	2000	\$7,100	\$7,995
CAL16570	Intersection	ROUTE 65	CONSTRUCT INTERSECTION FOR NEW LINCOLN PARKWAY CROSSING	1998	\$8,889	\$8,889
CAL10620	Right-of-Way	ROUTE 65	BUY RIGHT OF WAY FROM 0.6 MILE S. OF INDUSTRIAL BLVD TO 0.5 MILE S. OF YUBA LINE	2000	\$9,600	\$10,810
CAL15240	Road New	ROUTE 49	I-80 TO DRY CREEK - BUILD NEW FOUR- LANE BYPASS	2015	\$46,000	\$60,030
CAL16480	Road Widen	ROUTE 49	I-80 NEVADA ST.: WIDEN TO SIX LANES	2007	\$8,333	\$11,533
CAL16470	Road Widen	ROUTE 49	EDUCATION DR. TO DRY CREEK RD. WIDEN TO SIX LANES	2010	\$4,767	\$7,212
CAL15340	Road Widen	ROUTE 193	WIDEN FROM D STREET TO EASTLAKE BLVD	2005	\$42,000	\$54,810
CAL15250	Road Widen	ROUTE 65	WIDEN TO 4 LANES FROM BLUE OAKS BLVD TO NEW EIGHT-MILE DRIVE	1998	\$8,000	\$8,488
CAL16490	Road Widen	ROUTE 49	NEVADA ST. TO EDUCATION DR.: WIDEN TO SIX LANES	2002	\$11,900	\$14,209
CAL16240	Safety	ROUTE 49	MODIFY SIGNALS AT VARIOUS INTERSECTIONS, AND INTERSECTION IMPROVEMENTS	1998	\$1,750	\$1,857
CAL10660	Soundwalls	I-80	BUILD SOUNDWALLS FROM 0.8 MI TO 0.2 MI WEST OF ROCKLIN RD UNDERCROSSING	1998	\$1,008	\$1,069
CAL16250	TSM/TDM	ROUTE 49	SIGNAL TIMING COORDINATION AT 12 INTERSECTIONS, LINCOLN WAY TO DRY CREEK RD	1996	\$325	\$325
CAL16390	TSM/TDM	I-80	RAMP METERS AT ALL INTERCHANGES FROM FORESTHILL ROAD TO SAC COUNTY LINE	2005	\$4,210	\$5,494
CAL16260	TSM/TDM	ROUTE 49	BUILD TURN LANES, ACCEL/DECEL LANES, SIGNALS AT HULBERT WAY INTERSECTION	1996	\$2,000	\$2,000
			Caltrans Total		\$234,482	\$302,845
Regional Projects (Multiple County)						
SAC17240	RIDESHARE	Bicycle/Pedestrian	AREAWIDE PEDESTRIAN PLAN	2015	\$20	\$35
SAC17310	RIDESHARE	Bicycle/Pedestrian	LIGHTS-ON-BIKES PROGRAM FOR COMMUTERS	2015	\$10	\$18

Project List, Draft Metropolitan Transportation Plan

SacogNum	Jurisdiction	Type	ProjectDescription	Year	Cost In '96 \$ (\$1,000s)	Escalated Cost (\$1,000s)
SAC17330	SAFETY CENTER INC.	Bicycle/Pedestrian	RIGHT RIDER PROGRAM FOR SAFE BICYCLING	2015	\$280	\$491
SAC17390	RIDESHARE	Bicycle/Pedestrian	BICYCLE SUBSIDY PROGRAM FOR LOW-INCOME COMMUTERS	2015	\$20	\$35
VAR10000	CALTRANS	Bridge Replacement	BRIDGE REPLACEMENT AND SEISMIC RETROFIT	1996	\$11,013	\$11,013
CAL16000	CALTRANS	Safety	SEISMIC RETROFIT	1996	\$7,000	\$7,000
VAR10030	CALTRANS	Safety	SAFETY PROJECTS	1996	\$2,647	\$2,647
CAL15980	CALTRANS	Safety	RAIL, HIGHWAY, AND PROTECTIVE DEVICES	1997	\$300	\$300
VAR10020	CALTRANS	Transit Capital	RAIL & HIGHWAY CROSSING IMPROVEMENTS	1996	\$2,647	\$2,647
CAL16770	CALTRANS	TSM/TDM	CONSTRUCT REGIONAL TRAFFIC MANAGEMENT CENTER	1997	\$8,000	\$8,240
CAL16821	RIDESHARE	TSM/TDM	RIDEMATCHING & COMMUTE SERVICES	1999	\$812	\$887
CAL16841	RIDESHARE	TSM/TDM	RIDESHARE MARKETING AND EDUCATION PROGRAMS	1999	\$499	\$546
CAL16800	CALTRANS	TSM/TDM	ADDITIONAL RAMP METERS ON FREEWAYS	2005	\$5,000	\$6,525
SAC16310	RIDESHARE	TSM/TDM	GUARANTEED RIDE HOME PROGRAM	1996	\$192	\$192
			Regional Total		\$38,440	\$40,575

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